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VOL. III.

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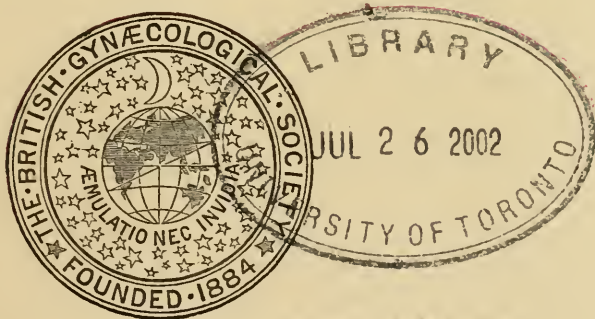
BEING THE JOURNAL OF

THE BRITISH GYNÆCOLOGICAL SOCIETY.

VOL. III.

EDITED BY

Fancourt BARNES, M.D.



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THE BRITISH GYNÆCOLOGICAL JOURNAL

VOL. III.—NO. 9.

MAY, 1887

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, JANUARY 26, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT, IN
THE CHAIR.

PRESENT: 40 Fellows, 18 Visitors. The following were elected Fellows of the Society: Dr. C. A. L. Reid; Dr. T. Chambers; Dr. T. F. Pearse.

The following were proposed for election:—Dr. Fernando F. Walker, Buenos Ayres; Dr. Charles Stormont Murray, London; Dr. John F. L. Whittingdale, Maidstone; Dr. Frederic Manser, Tunbridge Wells; Dr. Barré Latter Tandy, Haverhill; Dr. Thomas Richmond, Glasgow; Dr. John Shaw, London; Dr. Frederic Ernest Pocock, London; Dr. Charles Boyce, Maidstone; Dr. James Thoresby Jones, London; Dr. Edward Wilson, Ely; Dr. Augustus Frederic Dimmock, Ely; Dr. Alex. Bowie, London; Dr. John Beckett, London; Dr. S. L. Cook, Washington, U.S.A.

Dr. HEYWOOD SMITH exhibited a battery recently brought out by Messrs. Mayer and Meltzer, 71 Great Portland Street, with various lights—one a reading lamp of con-

siderable power, also one in the shape of a pin that could be worn, and which could be read by ; a clip that can be fastened to the edge of any speculum, and throws a good light down it, while, at the same time, it allows of various instruments being used ; and also a light at the end of a rod, that can be used during operations, as, *e.g.*, in the abdomen.

N.B.—Dr. Heywood Smith used the latter two days afterwards, during ovariectomy, whereby the whole cavity of the pelvis was lighted up and showed plainly the bleeding points.

Dr. BANTOCK then delivered the following address :—

GENTLEMEN,—My first and most pleasing duty is to express my sincere and grateful acknowledgment of the very high honour you have conferred upon me by placing me in this responsible position. Following in the footsteps of the two distinguished men who have preceded me, I am only too conscious of my own unworthiness of this eminent post, feeling sure that, for the efficient discharge of the duties of this chair, I shall have to rely on your kind assistance, while I must bespeak your indulgence with my shortcomings. If, however, the fact that I am animated by the strongest desire to promote the interests of this society, and, still more, to advance that branch of our art which this society has been established to foster, may be regarded as constituting any claim to your goodwill, then I yield to no man in this room, or indeed in our ranks. I will only add that I am determined to give my closest attention to the duties of this office, and to make every effort in my power towards maintaining the high position this society has already attained, and towards advancing the important objects we all have at heart, and for which we exist as a society.

When I look back on the addresses which have been delivered from this chair in the short period of our existence as a society, on the eloquent orations of our first President, as well as the practical and instructive addresses of my immediate predecessor, I confess I am oppressed with the con-

sciousness that it will be very difficult for me to maintain the high standard with which we have started, while I feel that this is, already, one of the instances in which I shall have to ask for your indulgence.

On casting about for a subject that would be worthy at once of this occasion and your attention, it occurred to me that I could not do better than bring before you the subject of Listerism : its past, its present, and its future.

I have selected this subject not only because of its intrinsic importance, but also because it gives me an opportunity of vindicating my own attitude towards it, of putting myself right with my professional brethren, and of removing some misrepresentations to which I have been subjected.

It is scarcely necessary for me to explain what constitutes Listerism, though, for the sake of completeness, it may be as well to do so as concisely as possible.

Listerism, then, is founded on the hypothesis that ordinary atmospheric air contains germs or seeds of disease, which, falling upon the field of operation, develop there, and in that development are answerable for the majority of the unsuccessful results of surgical practice. To prevent that development there was instituted the practice of charging the air surrounding the patient, and especially the field of operation, with a substance which was supposed to have the effect of destroying, or at least of neutralising, the influence of those germs. As you are all aware, the substance finally selected was carbolic acid. This was employed in the form of a spray to play upon the wound, and of a solution for the hands, instruments and sponges, in the proportion of $2\frac{1}{2}$ per cent., or 1 in 40. It is not necessary for me to examine minutely the theory on which this practice was founded. It may be summed up in the words of an eloquent writer in the *Times*¹ of a few years back, as follows, viz. : ' This practice was based upon a hypothesis which was not proven, and is very probably not true.' It need not, therefore, surprise us that, the

¹ ' Modern Surgery,' the *Times*, April 1, 1880.

premisses being wrong, the deduction should prove to be faulty. The correctness of the above dictum, however, will be demonstrated as I proceed in my argument.

LISTERISM : ITS PAST.

Many of you will remember with what trumpetings this practice was heralded forth, and how it seized not only upon the professional, but also the public mind, and bound it, as it were, in the spell of a new religion. It rapidly spread over this country and the Continents of Europe and America, and soon found its way to the remotest corners of the earth. And such were the faith cherished and the zeal displayed that, as has so often happened in the case of religion, even persecution of heretics followed in its train. Nor can we wonder at this result when we find a man, occupying the position of Professor Nussbaum, of Munich, closing a course of lectures, in 1880, with one in which he 'discussed the consequences following to Medical Jurisprudence from the revolution in surgical opinion caused by the antiseptic method.' So strong an adherent was he 'of this method that he would extend the statute of the German Penal Code, dealing with bodily injuries and damage to health through negligence or malapraxis to such a case as that of a surgeon examining a wound with a finger not disinfected according to the strictest antiseptic principles.' (*British Medical Journal*, January 8, 1881, p. 61.)

Hence, in the course of time, we read of an unfortunate midwife being consigned to prison, in Russia, because she had omitted to wash her hands in a solution of carbolic acid before examining her patient, though she had done so on leaving her own home ; for to this omission the fatal result of the case was attributed. Nor have our own ranks been exempt, for, in Germany, 'a surgeon was put on his trial for malpractice, and convicted on the ground that he had not observed the well-recognised rules prescribed by modern medical science for the treatment of such cases (the patient had been stabbed in the chest with a knife), and that he must

have known by ordinary observation that his own treatment would be followed by death'! Here the reporter adds a note of admiration, and then goes on to say: 'On an appeal to a superior court this remarkable judgment was confirmed, and, although a further hearing has yet to take place before a third tribunal, the whole transaction suggests unpleasant thoughts of what might possibly arise in our own country if this example of the Teutonic method were to find followers on the English Bench.'¹

Again, a surgeon was committed to prison in Austria because he had treated a case of compound fracture of a limb without Listerism, and was not released until pressure had been brought to bear on the authorities by his professional brethren.

That a reaction should be the result of such exaggerated zeal as characterised the exponents and adherents of this practice was inevitable, and it was not long ere the theory, which, as I have said, rested on a false basis, was overthrown by the results of clinical experience, while it equally failed in its scientific aspect, as shown by the fact, demonstrated by Mickulicz, that bacteria lived even in a 10 per cent. solution of carbolic acid.

Nor were there wanting indications to show that a storm was a-brewing. Low murmurings, as of subterranean upheaval, were heard from near and from afar. Carbolic acid was known as a destructive agent when applied to living, however serviceable it might be in preserving dead, organic matter—as our breakfast tables abundantly testified. Men had begun to look out for another agent that might be free from its deleterious effects, and for a while salicylic acid and thymol were, in some places, substituted, but only to be given up in their turn. Then there was a further disturbance of the equanimity which had at first seemed to prevail, and this time of still more serious import; for one of the essentials of the system—as it was then regarded—was called in question. I mean the spray. Early in the year 1878, Professor von Bruns, of Tübingen, began a series of experiments directed to

¹ *Medical Times and Gazette*, November 22, 1884, p. 719.

the testing of the value of the spray. But it was not until December, 1880, that his results were published in a paper bearing the following title: "Fort mit dem Spray" (Away with the Spray); and the conclusion he arrived at was as follows: 'The carbolic spray in surgical operations is not only useless and unnecessary, but also disagreeable and productive of interruptions; it should, therefore, be discontinued.'

These murmurings of discontent were partial in their nature, but they were sure heralds of the impending storm. I omit any reference, for the present, to my own experience at this time, and to the change which took place in my opinions and practice in April, 1879, in order that I may give a continuous and connected view of the part I have played in this matter.

Many will remember how strenuously the late Mr. Calender opposed the Listerian method; but the first rude shock to which the system, in its entirety, was subjected, was in the memorable address of Mr. Savory, delivered before the British Medical Association at Cork in August, 1879. In that address, which threw such consternation into the ranks of the Listerites, Mr. Savory contrasted the results of a more simple treatment with those obtained by Listerism, and certainly not to the advantage of the latter. He also challenged the adherents and upholders of the system to publish their results, not in isolated cases, but in continuous series. His words on this part of the subject will bear repetition. He asks, 'Are there any trustworthy statistics to show that, hitherto, the results obtained by Lister's plan are better than the best results obtained by any other method? . . . I take, for instance, our hospital statistics on the one hand, and—I seek in vain for any parallel results on the other. And, while this is so, I shall consider that I am justified in the conviction that, hitherto, the best results have been achieved by the simpler method. I must add, too, that one seeks in vain for statistics of any kind from sources from which, I submit, we are entitled to expect them. Why are such statistics withheld? Are they not worth the trouble of collection? And, if they have been collected, why are they not published?'

That was a true and correct statement of the case when Mr. Savory wrote. To the present day his challenge has been only partially accepted. Next in importance I place the paper of our late President, read before the Royal Medical and Chirurgical Society, on February 10, 1880, entitled 'The Antiseptic Method Tested by One Hundred Cases of Successful Ovariectomy.' In that paper Mr. Lawson Tait, while fully accepting the theory of putrefaction as applied to dead organic matter, denied its validity in the case of living organisms. I have read his paper again for the purpose of this address, and would commend it to you for reperusal. Mr. Tait said: 'If the views of the germ theorists were correct, we ought to expect that no operation could be done successfully without rigid antiseptic' (in the sense, I presume, of Listerian) 'precautions. . . . There ought to be no difference in the mortality of operations in small and in large hospitals, in town and in country. In fact, if germs could have had the unbounded influence which is claimed for them by many antisepticists, surgery must long ago have been an extinct art, if, indeed, it ever could have struggled into existence.' He called attention to 'three factors upon which the uniform experience of operating surgeons has taught them that the success of their work depends,' these three factors being, viz., 'the condition of the patient, the condition of his surroundings, and the nature and extent of the operation performed.' And he adds, 'Of these three, most undoubtedly the most uncertain factor is the first,' viz., the condition of the patient—a statement with which I entirely agree.

But though, as I think, Mr. Tait conclusively maintained his position as far as he went, he fell, at that time, short of the logical conclusion, because he had not yet emancipated himself from the influence of the prevailing *fashion* of the day. For he concludes with these words: 'My suspicions are fully confirmed by the facts I have given above, and, though they will cause me to modify my conduct of the details, especially in the dressings, yet I shall continue to employ all the antiseptic precautions (Listerian precautions) during operations,

as I have hitherto done, until a wider experience decides whether they may not all be given up.'

I thought, at the time, that that conclusion weakened the force of his argument, and I think so still.

However, we now know how far that modification of the details has since been carried, until, in the process of evolution, as was believed by Lord Monboddo to have occurred in the case of the human species, 'de tail' has entirely disappeared! We know also with what results.

About the same time, that is, early in the year 1880, appeared the very important correspondence on surgical statistics between the late Professor Spence and Mr. (now Sir) Joseph Lister, in which I believe it was generally admitted that the victory remained with the former. Nor must I omit to remind you of the remarkable 'Results of Surgical Treatment without Antiseptics in the Kilmarnock Infirmary,' published by Dr. MacVail in the same year. In this instance, one of the essential peculiarities of the practice was in direct contradiction to the Listerian theory and practice; for, as in the case of an amputation of a limb, the flaps were exposed to the air for several hours, or until all oozing had ceased and the raw surfaces had become glazed over. Here, then, was a grand opportunity for the entrance of germs! But they seemed to refuse the offer.

The year 1880 closed with my own paper 'On Hyperpyrexia after Listerian Ovariectomy,' read before the Royal Medical and Chirurgical Society on December 14, to which I shall have to refer further on.

But the following year was still more disastrous to the pretensions of this system; for it was in that year (1881) that the *coup de grâce* may be said to have been given it, at the meeting of the International Medical Congress held in this city, when Dr. Keith announced that he had given up the spray. Our late President may perhaps remember the remark he made to me as Dr. Keith sat down: 'Listerism is dead.' This was a crushing blow; for great had been the jubilation over Keith's eighty consecutive cases of ovariectomy

without a death. But we have Keith's own authority for saying that pure Listerism played no important part in that magnificent record; and he further told us that in his next twenty-five cases, done under the same system, he had a mortality of 20 per cent. Listerism had now received a shock from which it has never recovered: the spray rapidly disappeared from the operating room, and has now become almost an object of antiquarian interest.

It will now be convenient to refer more at length to my own part in the history of this question.

Listerism may be said to have been in full swing in general surgery ere it was deemed prudent to apply it in abdominal surgery. I believe Keith was the first to employ it in this department of our art. He was not satisfied with his first essay, but again took it up with the result we now know.

It was introduced into the practice of the Samaritan Free Hospital by Mr. Knowsley Thornton, in the autumn of 1877. In the beginning of 1878 glowing reports came over from Germany as to the superiority of thymol over carbolic acid, for which it was substituted as less irritating and equally efficacious, and I performed my first operation with this substance, after the Listerian method, on February 13 of that year. On March 13, 1878, I performed my sixth ovariectomy in this manner, and the result was fatal. That was not promising. Then I resorted to Listerism pure and simple, using absolute phenol, and paying the greatest possible attention to all its details. My second case, done under this system, died of acute pulmonary congestion, while everything within the peritoneum was in a perfectly satisfactory condition. Was this due to the chilling effect of the spray? My fourth case died from septicæmia. It was a case of very broad attachment, requiring nine ligatures. Nowadays I would enucleate the tumour in such a case, and probably drain. The fact, however, remains that death was due to septicæmia. Not to weary you with too many details, I will summarise the results up to my thirty-sixth case (the seventy-second of my total number) by saying that out of the thirty-six I lost eight—giving

a mortality of 22 per cent. as against 26 per cent. in my first thirty cases, and 20 per cent. in the six cases done with thymol. I will not trouble you with an analysis of these cases further than to say that in the first thirty cases five out of the eight deaths were due to causes over which the Listerian method, with all its pretensions confirmed, could not be expected to exercise any control: that the one death under thymol was due to septicæmia, and that of the thirty-six Listerian cases one died of genuine septicæmia, and in three the death might fairly be attributed either to the chilling effect of the spray or the poisonous effect of the carbolic acid. In my thirty-sixth case the patient had been tapped ten times, the tumour weighed 51 lbs., and was adherent to the whole extent of the anterior abdominal wall, as well as extensively to the omentum. Within twelve hours the temperature rose to over 103 degrees, and in spite of repeated sponging with iced water it steadily went up to over 107 degrees; the patient became delirious, and no urine was secreted. By means of the ice-pack the symptoms were subdued, and at the end of twenty-four hours the urine again began to flow, at first in very small quantity and afterwards abundantly. Suffice it to say that the patient, in the course of her convalescence, presented all the characteristic symptoms of acute nephritis, such as hyaline casts, albuminuria, indican in large quantity, &c. This case threw a flood of light on the thirty-third case of this series, a fortnight previously, in which the patient died with somewhat similar symptoms in twenty-six hours. *Post-mortem* examination revealed acute congestion of the kidneys as the sole apparent cause of death. I was now on the horns of a dilemma; for if, as was contended by the advocates of this system, I was protecting my patients from septicæmia by the use of carbolic acid, I was at the same time exposing them to danger of poisoning by the self-same substance. From that time, therefore, I began to reduce the proportion of carbolic acid in the spray and solutions to 1 in 50, 1 in 60, 1 in 80, and lastly to 1 in 100, which I reached in July, 1880.

The results of that long-continued experiment I communicated to the Royal Medical and Chirurgical Society, in the paper already referred to. In it I gave ample evidence of the effects of carbolic acid upon the kidneys, and of its action in the production of hyperpyrexia. But I will only trouble you with the concluding paragraph, which is in these words: 'It only remains for me to add that I have now proved that the claim that has been set up for Listerism (in preventing pyrexia after operations) cannot be sustained; that carbolic acid may be introduced into the circulation in poisonous quantity by means of this method, that when so introduced it manifests its presence by producing a state of hyperpyrexia, and that thus it actually produces, too often, what it was intended to prevent. And the practical result of all this, so far as I am personally concerned, is, that, to meet the evil which to me is so formidable, I have gradually diluted my spray and solutions, so as to reduce the whole question to one of *cleanliness*, which, after all, is the true secret and merit of Listerism, and, I am happy to say, with the effect of very greatly adding to the success of my ovariectomy work.' We shall see how far that conclusion has been justified by events. This aspect of the question was further dilated upon in my reply on the discussion.

The first result of the reading of that paper was a reply by my own colleague, which partook more of the nature of an independent statement than an attempt to question or explain away my results and conclusions—a statement which was sadly marred by personalities, and has since been followed up by ever-increasing personal hostility.

I was also told by my friends that it was unwise on my part to go against the stream; that by opposing Listerism I was running counter to popular as well as medical prejudice, and that I was doing myself a professional injury. But, gentlemen, I called to mind the old adage, *Magna est veritas, et prævalebit*, and as I was determined to follow, at all hazards, what I sincerely believed to be the truth, I resolved to carry out my experiment to its ultimate results, and until I should

be either convinced of my error, or confirmed in my faith. That I suffered I am free to confess. It is within my personal knowledge, and what, think you, was the first visible effect? The President of the Royal Medical and Chirurgical Society at that time, viz. Mr. Erichsen, thought I ought to belong to that society, and under his ægis I allowed myself to be nominated for the Fellowship. I was supported by the cream of the surgical branch of the profession in that application, and it is humiliating to think that the united voice of those men was of so little weight that I was *twice* rejected. Who were my opponents? It is not improbable that the majority of the men who succeeded in bringing about that result, even by a bare majority, were little known beyond the circle of their own firesides. Little did they think that they were paying me the highest compliment in their misdirected power. Had my name been known only as that of a legally qualified practitioner I should, no doubt, have passed the portal without a dissentient voice, without even the click of a solitary black ball. And rumour even has it that I need not have looked far afield from my own hospital in search of the prime instigator of that intrigue.

A much more discreditable thing remains to be mentioned, but in this instance I have authentic information as to its author.

In the *British Medical Journal* of May 20, 1882, there appeared a leading article under the title of 'Simple and Aseptic Ovariectomy.' I would observe, in passing, that the term 'aseptic' is a misnomer. An operation cannot be called *aseptic* until the result is known; therefore the operation itself is said to be *antiseptic* when means are employed with the view of preventing *septic* mischief. I would also remark that the name of Spencer Wells occurs with suspicious frequency.

The author of the article begins by referring to two papers recently published: the first by Professor Kocher, of Berne, 'On Ovariectomy in Switzerland,' and the second by Dr. Yandell, entitled 'On Ovariectomy by Thomas Keith, M.D.'

In the first place the writer compares the results of ovariectomy before and after the use of antiseptics, in the Listerian sense, in Switzerland, and he quotes Professor Kocher to the effect that the total mortality in 300 cases was 23 per cent., and that while the mortality in the first series (of 55 cases) was 63 per cent., that of the second (245 cases) was only 11 per cent. 'Going on to the experience of individual operators, Professor Kocher shows that the six surgeons who have done the largest number of operations, and have operated both before and since the adoption of the Listerian precautions, "have diminished the mortality one-half since their use of antiseptics;" and he argues that it is a very strong argument in favour of the antiseptic treatment that it has enabled twenty-three different operators, some of them with very small experience, to arrive at a result superior to that which Spencer Wells attained before the method of Lister' (and, he might have added, which he has not been able to improve upon by the adoption of the method). 'Putting aside a rare, exceptional case of death from some accident—collapse or obstructed intestine, for example—nearly all the deaths are from peritonitis, which means infection. A death from peritonitis is, therefore (in Professor Kocher's words), "a reproach to the operator;" for we are now, by antiseptics, enabled certainly (observe this) enabled *certainly to avoid peritonitis as a sequence of Ovariectomy.*'

Time does not permit me to join issue with the writer on this subject, but I would ask the question, Has peritonitis, then, been banished from the death-roll of those who practise the Listerian method? *Most certainly not.*

The next paragraph is chiefly devoted to the purpose of showing the remarkable accordance of Professor Kocher's antiseptic precautions with those of Spencer Wells, and of quoting the views of the latter as to the 'chilling effect' of the spray, his doubts concerning it, and effect of the 'misty cloud' in obscuring the field of operation, closing with this argument, that 'comparative observations made under similar conditions with and without spray were required

before we could ascertain what is the share which the spray, among other additional antiseptic precautions, has had in obtaining the better results, which have undoubtedly accompanied their combined employment.' 'It is,' he says, 'interesting to find that Professor Kocher has given up the spray in private practice as "injurious in the conditions where it is not indispensable"'—whatever that may mean.

Then the author of the article in question passes to what he calls 'the very remarkable experiences of Keith, as recorded by Yandell.' He points out that in Keith's results 'the mortality was steadily diminishing all that time' (i.e. in the pre-Listerian days). In the first eight cases under antiseptics there were two deaths, and then there was a run of eighty cases without a death. And finally, 'Since leaving off the spray, and including twenty-six other cases done without it, Dr. Keith says, "I have had but a single death in a total of fifty-two cases done without antiseptics."'

But the sting is in the tail, as it should be in accordance with Nature's law in the insect world.

He goes on to say, 'All this affords ample material for serious reflection. If in Switzerland antiseptics have been followed by a remarkable diminution of the death-rate, if Dr. Keith had one run of eighty cases, treated antiseptically, without a death' (it will be convenient to omit all mention of a mortality of 25 per cent. in the immediately preceding eight cases, and of 20 per cent. in the immediately succeeding twenty-five cases), 'is an occasional death from carbolic acid poisoning (which may, perhaps, be avoided by not using solutions unnecessarily strong, or by the use of some other agent)'—a case of begging the question—'to justify a surgeon in operating without more than ordinary protection against infection? What does recent experience in London say on this point? Has the mortality after ovariectomy in our large hospitals been smaller of late years than it was before? If so, can the diminution be explained by the increasing experience of the operators? On this point, the registrars of our general hospitals may give some important evidence; and in

the special hospital which may still be regarded as the headquarters of ovariectomy—the Samaritan—the experience of the year 1881 should afford an array of important facts. In that hospital the patients are very much of the same class of life, and are treated under very similar conditions by three operators of large special experience.’ (The writer could not even state this part of the case correctly, for one of the operators had only begun to operate in January of the same year ; but it may be stated, to his credit, that he got through the year with eight cases without a death.) ‘Two of these surgeons,’ he continues, ‘use the spray of carbolic acid in every operation, of a strength of 1 in 40, and follow out in the strictest manner all the peculiarities of the Listerian method. The third, after gradually diminishing the strength of the spray till water alone was used, gave it up altogether. Here, then, were the “comparative observations made under similar conditions with and without spray” proposed by Mr. Spencer Wells, carried out under singularly favourable conditions. And what has been the result? We have been informed that the committee has expressed a strong opinion against the performance of ovariectomy, for the future, without full antiseptic precautions ; and the experience of 1881 would seem to justify this recommendation, however objectionable it may be to admit of any interference by a committee of laymen in practical details. Still, if in the same institution, at the same time, by operators of equal experience, the same operation with antiseptics is followed by a mortality of about 7 per cent., and without antiseptics is followed by one of 30 per cent., the fact deserves very serious consideration, and is rendered additionally important by the apparently contradictory results of experience in Switzerland and in Edinburgh which have now led us to direct the attention of our readers to the matter.’

Need I say, gentlemen, that the third operator here referred to is the man who is now addressing you ?

In the first place, you will observe how careful the writer is to conceal his identity. Now, the Committee of the

Samaritan Hospital consists of the *consulting medical officers* and a certain number of laymen, and when he suggests how 'objectionable it may be to admit of any interference by a *committee of laymen* in practical details' he evidently desires to conceal this fact. It was the duty, then, of the medical to direct the deliberations of the lay portion of the committee. Must I ask you to believe that the facts necessary to guide them to a just decision were actually placed by myself in the hands of the writer of this article, as one of the medical members of the committee, and the most authoritative amongst them? It does not stand to reason that the medical was overruled by the lay element in such a matter as this. Hence we are driven to the conclusion that the resolution, if it did not meet with the concurrence of this most important member, did not encounter his resistance. He must, therefore, be held to be *particeps criminis*.

Nor is it an exaggeration to characterise the summary of results as a tissue of misrepresentation. It is not merely an error of calculation which any schoolboy would have avoided; for, as I have said, the exact figures and facts were placed in the writer's hands. It would be a charitable assumption that a man who was unable to perceive the true bearing of his own facts, as, for instance, when comparing the results of the clamp and cautery respectively, could not be expected to interpret rightly the facts and figures that were supplied to him by another. But this is not a case for the exercise of charity, and we must find a more simple explanation.

What, then, were those data? They were these, viz., that in the year 1881 I performed thirty-five ovariectomies in the hospital, of which seven died—giving a mortality of 20 per cent. instead of 30 per cent., as stated by the writer of the article. But how did these patients die? I answer: Two died from hæmorrhage (slipping of pedicle, &c.), two died from shock within ten hours, one died from obstructed intestine on the seventh day, and two died from what I will call septicæmia, and one of these died through the too early

removal of the drainage tube, *i.e.*, while the serum was still red. Thus of the seven cases two only have any bearing on the question under discussion—yielding a mortality of 6 per cent.

That is the way in which this important question was presented—I ought, perhaps, rather to say *misrepresented*—to the profession. That was the way to analyse ‘comparative observations made under similar conditions with and without spray,’ in the judgment of the author. What do you think of the performance? What do you think of the Author? Have you read the riddle of the Authorship?

Well, gentlemen, it is scarcely necessary for me to say that I paid no attention to the ‘strong opinion’ of the committee under these circumstances; but, believing I was in the right way, continued to dispense with ‘full antiseptic precautions’—a phrase which we now know only meant Listerism—paying the strictest attention to *cleanliness*. And what is now the result? The result is a total mortality in my practice since that time of 7 per cent. But more of this in its proper sequence.

Listerism was still the order of the day, though its adherents were gradually falling away one by one. It is a remarkable fact that our late President and myself were, without any intercommunication of ideas, working in the same direction, at the same time, and with the result that we arrived at the same conclusion—a fact which I scarcely need say is very gratifying to me.

Statistics were, however, being appealed to with the view of demonstrating the superiority of the Listerian method. We all know how statistics may be manipulated. One glaring instance of this must not be passed by. Many of you will remember the animated correspondence on this subject two years ago, between Mr. Lawson Tait and Mr. Knowsley Thornton, evoked by the latter’s announcement that he had just then completed seventy-five cases of ovariectomy, in the Samaritan Hospital, without a death; and you will remember that Mr. Tait challenged Mr. Thornton to produce

his private results. That challenge was not accepted. Why? Because, as we now learn from his recently published table, that mortality was as high as 13·5 per cent. That was at least a *suppressio veri*. But the same table furnishes us with yet another instance of the same practice. Mr. Thornton contended, in his recent paper, that his results showed a progressive improvement. Well, what does his table tell us? It tells us that in the first hundred cases the mortality was 9 per cent., in the second 5 per cent., but in the third 7 per cent.

How is this difficulty got over? Simply by dividing the 300 cases into two groups of 150 each. By that means he arrived at 7 per cent. for the first group, and 6 per cent. for the second. Is that a fair way of stating the case? Is that sufficient ground for asserting progressive improvement in results? I will not weary you with further examples.

I am now about to do what I have myself denounced in the practice of my chief opponent—I may say my only opponent. I have denounced the practice of going to the register of a hospital and abstracting the results of a colleague's practice without that colleague's consent, and before he has himself published the results, or they have been published by the authorities of the hospital. Why do I do the very thing I have myself denounced? Because I do not choose to allow my opponent to fight me at an advantage.

Well, what does the year 1886 tell us? It tells us that Mr. Thornton has had thirty-two cases of ovariectomy, of which six died—giving a mortality of 18·7 per cent., while all of mine—twenty-five in number—have recovered. How will the writer of the article to which I have called your attention interpret these facts? Let me apply his own words. If, in the same institution, at the same time, by operators of equal experience, the same operation *with* antiseptics is followed by a mortality of 18·7 per cent. in the hands of one operator, or 15·2 per cent. for all the Listerian ovariectomies, and *without* antiseptics is followed by *no mortality at all*, the fact deserves very serious consideration. I will not pursue the

parallel. Nor should I omit to mention the fact that for the last three years (1884-5-6) the mortality in the Samaritan Hospital *with* antiseptics is 10·6 per cent., while that *without* is only 4·2 per cent. Such, then, is the irony of fate! I care not now to inquire how all these patients died, because I deem it only fair to mete out to others the measure that was meted out to me. True, that is a most unscientific manner of dealing with such a subject. A bare statement of results, as, for instance, of the number of cases with the number of deaths, affords no information on such a question as this, and it behoves us to be very careful how we draw deductions from them. Yet that is what was done in my case, and you see the result. It would have been better for the writer of these articles to have let them alone. Where now, I ask, is the evidence of progressive improvement?

I will not weary you with more than a passing reference to an article in the *Medical Times and Gazette* of the same date, evidently written by the hand of a man in sympathy with this system; for such was his infatuation that it was a question with him whether a death within ten hours should not be regarded as due to what might be called *express* septicæmia—galloping would scarcely indicate the speed—rather than shock. Nor is it necessary to do more than point out that the explanation which was appended to the list of deaths amongst my cases in the report of the Samaritan Hospital for that year, and which was called in question by the writer of this article, is now stamped with approval by the acceptance of the selfsame nomenclature by those of my colleagues who still practise the Listerian method in all its rigidity. It would be a waste of time to combat his arguments, for they are beneath contempt.

With the statement that of my last 100 cases, bringing down my results to the first week of this year, the mortality is only 4 per cent., that of the last sixty of these cases only one has died, and that the last fifty have all recovered, I close this long, and, I fear, too wearisome reference to my own work. I offer no apology for the length of my statement,

because I am sure you will allow that a full explanation is of vital importance to me in view of the misrepresentation under which I have suffered.

LISTERISM : ITS PRESENT.

I now proceed to direct your attention to the present position of the Listerian question. Wherever we look, at home or abroad, we find indisputable evidence of waning faith in this system. That faith has undergone all degrees of modification, from the strongest conviction to total disbelief in its efficacy—nay, even to a belief in its injuriousness. There is not a general hospital in this country where it has maintained its vitality. Even in its transplanted home in this city it is conspicuous by its absence. This we have on the authority of Dr. Playfair, who told us, on October 26 last, that he had ‘recently operated on five cases in succession at King’s College Hospital without spray; indeed, on one occasion when he asked an assistant to prepare it he was told that there was not a spray-producer in working order in the hospital’ (*British Medical Journal*, December 25, 1886, p. 1280). In a few isolated places, however, the spray may still be seen, as, for example, in the Samaritan Hospital, where it is employed by my colleagues in all its pristine purity of detail; sometimes it may be seen playing on the back of the operator, sometimes on the backs of the spectators—all of whom may not have had a bath recently—and sometimes as a means of laying the dust previous to the commencement of an operation.

But it is to Germany we must look if we desire to see the farce in full swing. In Berlin it is the habit of one of its most distinguished gynæcologists to operate in a room which more resembles a wash-house than a surgical operating room, with its ‘misty cloud’ of carbolised steam obscuring the field of operation, and its walls and floor streaming with carbolised solution. And when visitors are admitted they are required to give an assurance that they have had a bath in the morning

—a very wholesome thing surely—and are obliged to divest themselves of coat, waistcoat, collar and cuffs, all this in an atmosphere so damp that they soon look and feel as if they had been taking a bath, and so irritating to the air passages, that ‘all in the room are more or less inconvenienced from it, and are compelled to cough a great deal’ (*Cincinnati Lancet and Clinic*). Why all this elaborate extra-precaution against infection if the operator believes in the efficacy of the system? To my mind it is the most convincing evidence of want of confidence in it.

It was stated as a fact by Mr. Thornton in 1880, that ‘as a rule there was no fever at all after an antiseptic ovariectomy, and, as Mr. Wells had said, “the ice-cap was now never required.”’ Let us consult Mr. Thornton’s last table again: and what do we find? We find that of the 300 cases the temperature remained under 100° in only twenty cases, that it remained under 101° (but over 100°) in ninety-four cases only, and that it exceeded 101° in nearly two-thirds of the whole number—or 186. What, then, is the limit of fever temperature?

But I will contrast what that table tells us with my own results. I take his last hundred (*i.e.* bringing his cases down to January, 1886), and my last hundred, viz., to December, 1886, and this is the result:—

Highest temperatures in Mr. Thornton's last 100 cases	Highest temperatures in Dr. Bantock's last 100 cases
Under 100° . . . in 10 cases	Under 100° . . . in 19 cases
Over 100° , but under 101° . . . in 37 „	Over 100° , but under 101° . . . in 48 „
Over 101° . . . in 53 „	Over 101° . . . in 33 „
Not exceeding 100° in 8 „	Not exceeding 100° in 15 „

Giving Mr. Thornton the benefit of his most successful 100 cases, viz., with a mortality of 5 per cent., we get the following result:—

Under 100°	in 8 cases.
Under 101°	in 39 „
Over 101°	in 53 „
Not exceeding 100°	in 1 case.

Observe the uniformity in the numbers in both instances, under the same heads, except the last. That is very remarkable, and indicates a very uniform average amount of pyrexia in 'antiseptic ovariectomy.' Note also, that whereas he had only 47 cases with a temperature under 101° , I had as many as 67. Note further, that while he had only 1 and 8 cases respectively in which the temperature reached but did not exceed 100° , I had as many as 15. Could I have desired any more confirmatory evidence in support of my contention that carbolic acid, or the whole system if you will, produced a state of hyperpyrexia? That is the kind of evidence on which is based the assertion that 'as a rule there is no fever at all after antiseptic ovariectomy.' The fact is, the rule is just the reverse. See how dangerous it is, sometimes, to publish tables!

Nor can it be claimed that I derive benefit, from the employment of Listerism by my colleagues, in keeping the hospital free from septic germs; for, while cases have been dying in other wards from more or less pronounced septicæmia, mine have escaped under a system in which all antiseptics are banished from the operating room. I have not even deemed it necessary to hang up a wet carbolised sheet over the doors of my wards in these circumstances. On the other hand, what do we again find in Mr. Thornton's table? To his 365th case he appends this note: 'Had septic abscess in abdominal parietes. Patient in opposite ward died of acute septicæmia.' Now for the facts. I operated on my patient in the morning, and Mr. Thornton on his in the afternoon of the same day. There was subacute peritonitis in my case, and the patient died on the fourth day. It may be assumed that Mr. Thornton did not once expose his patient's wound till after my patient had died. But, further, the wards are situated at the top of the house. They are, moreover, separated by the breadth of the intervening staircase or well of the house, and are distant from one another over ten feet. The skylight is *always* open, and at that time of the year (July) the door leading to the roof, immediately over the

landing between the two wards, is also for the most part open. Thus, there is the freest possible supply of fresh air into the well, to say nothing of the direct ventilation of the ward from the opposite outside wall of the house. Let it be granted, now, for the sake of argument, that his case was infected by mine, then I ask what is the use of his 'full antiseptic precautions'? But is it not much more rational to suppose that Mr. Thornton so closed the wound as to leave an opportunity for bloody serum, and perhaps liquid fat, to accumulate between the raw surfaces?

Such is a sample of the evidence on which this system is bolstered up.

Not only was fever abolished, but even 'the need of the drainage tube had passed away.' So said Mr. Thornton in 1879, and as late as 1884. Is this so? His table tells a very different tale.

Yielding under the ever-increasing weight of accumulating facts tending to negative the Listerian theory and practice, it is now said by those whom I will call its apologists that, after all, it is the *cleanliness* ensured by the system—that which, in 1880, I ventured to characterise as the true secret and merit of Listerism—that has produced such an improvement in surgical results. If this be granted, then Listerism has been sailing under false colours. Why not, then, accept, in all its simplicity and innocuousness, the principle which is thus admitted to underlie it, and to which it owes its success? I see no way of escape from this alternative. Even Mr. Thornton, who has been the most zealous and combative disciple of the Listerian School, who would have us believe that under the protecting influence of the spray fever has been abolished, that septicæmia 'has been removed from the causes of mortality,' and that 'the need of the drainage tube has passed away,' who seems to have retained his faith in the system after his master has lost his, and who has taken every opportunity, in season and out of season, of thrusting his 'full antiseptic precautions' down our throats, even he now tells us, in words that may be regarded as intended to antici-

pate a possible charge, that he 'is no bigot in the matter of the spray,' but that it is merely 'a useful element,' for 'it keeps everything about the wound constantly moist with an antiseptic material'; and, further, wonder of wonders! that he is even 'prepared to admit that washing out the wound with water is very valuable.' (*Lancet*, October 20, 1886, p. 818.)

And how do matters stand, at the present day, as to the general results of Listerism, when brought into comparison with those obtained under the more simple method at which Mr. Tait and myself, with many others now following, have arrived? Where is there any record in its history to approach Mr. Lawson Tait's marvellous run of 139 consecutive cases without a death? What has Mr. Thornton to show in support of his boast that he would 'yet beat Keith on his own ground'? His recently published table tells us that his longest run is 48. Thus he stands fifth on the list, which runs as follows:—

Tait, with 139 cases.		Bantock, with 50 cases.
Keith, „ 80 „		Skene Keith, „ 49 „
Thornton, with 48 cases.		

And this, too, at a time when, if ever, he may be supposed to have mastered all the details and perfected the system. I will say no more as to his latest results. But nowhere is there to be found more convincing evidence in support of my contention than in the practice of Sir Spencer Wells, who has not improved his results by even 1 per cent. over those obtained in the hundred immediately preceding his adoption of the Listerian method.

Nor will I leave room for the suggestion that, perhaps, all these fifty cases of mine were simple; for I had to resort to the drainage tube twenty-eight times, in nineteen cases the operation involved both ovaries, and in one of these the uterus was also removed at the level of the internal os, in only sixteen cases were there no adhesions or their equivalent, in about one half of the cases I had to wash out the peritoneal

cavity, and in one case the patient had just completed seven months of pregnancy.

There is another aspect of the question which has been very much overlooked in all discussions on this subject. We are told by microscopists that the orifices of the mucous canals—such as the alimentary and generative tracts—swarm with living bacteria. These are the organisms, which, a few years ago, were supposed to work all the mischief. But their reign is over, and we are now living under the dynasty of the bacillus. Whatever be the name of the mighty potentate who keeps us in thraldom, his sway, it appears, does not extend to those prosaic regions. Who has ever seriously proposed that we should operate with ‘full antiseptic precautions’ upon a ruptured perineum? or a vesico-vaginal fistula? or a hare-lip? or a cleft palate? And yet, what do we find taking place under the very eyes, so to speak, of this ‘destroying Angel’? Why, this, viz., that in all of these instances perfect union by first intention almost invariably takes place, provided due coaptation of the raw surfaces be maintained, provided the sutures be not drawn too tight, and the parts be kept at rest. Even at the commencement of my Listerian practice, and while entertaining a belief in the system, I was puzzled by the facts I have just mentioned. And when I first ventured to question the value of the system I was politely told, by the man to whom I owe so many compliments, that I did not understand the subject.

There are some who still maintain that the spray and Listerian details must be employed even in amputation of the breast to obtain the best results; and the time even was when we were asked to strain our credulity to the extent of believing that a breast case had broken down because the spray had failed for a minute or two, or had been, by a whiff of wind, driven from the wound for a moment in the course of the operation, or even in the subsequent dressing, or because there was a pin-hole in the mackintosh outside the 8-fold gauze dressing! This was making a demand upon our credulity with which, it is to be hoped, for the sake

of our common intelligence, few have been prepared to comply. I challenge any adherent of this system to show better results—more rapid healing, or less irritation of the wound—than I obtain in these cases without any antiseptic whatever.

I cannot refrain from closing this part of my subject with the quotation of a passage from Froude's 'Life of Carlyle' which in its aptness will be found to be very striking. The biographer is referring to Ruskin's 'Letters on Political Economy.' I will substitute *Listerism* for 'Political Economy,' and *Surgical* for 'Political,' and the passage will read thus: *Listerism* 'had been a creed while it pretended to be a science. Science rests on reason and experiment, and can meet an opponent with calmness. A creed is always sensitive. To express a doubt of it shakes its authority, and is therefore treated as a moral offence. One looks back with amused interest on that indignant outcry now, when the pretentious science has ceased to answer a *surgical* purpose, and has been banished by its chief professor to the exterior planets.'¹

LISTERISM : ITS FUTURE.

Finally, Gentlemen, what is to be the future of this system? Shall I play the *rôle* of prophet, and attempt to forecast its future? The old adage forbids. Perhaps, ere many years have gone over our heads, *Listerism* will already have become a thing of the past and as a tale that is told; perhaps the men of even the next generation, in the course of their study of this subject as matter of 'ancient history,' will be heard asking of one another the question, 'What was it all about?' And perhaps it will be chronicled as one of the crazes to which, to our humiliation be it said, our profession had been given up soul and body. And as we now smile at the doctrines of the Rationalists and the Empiricists, of the Dogmatists and the Methodici, as we are lost in wonder and

¹ *Life in London*, vol. ii. p. 244.

amazement at the belief in charms and amulets, and in the efficacy of the royal touch, and as we ridicule the vagaries of the alchemists and the astrologers, of the mesmerists and the healers by faith and prayer, as well as the antics of the African medicine-man, so will our sons, perhaps, smile at the credulity of their fathers, and wonder at their unreasoning faith in the virtues of a practice which 'was based upon a hypothesis that was not proven,' and certainly was 'not true.'

Mr. LAWSON TAIT said that he had very great pleasure, in obedience to a request from the Secretary, in moving a vote of thanks to Dr. Granville Bantock for his able and incisive address. It was too well known to require repetition that the views which Dr. Bantock had given vent to concerning Listerism were entirely shared by him (Mr. Tait). He had looked always upon this strange infatuation in the surgery of the nineteenth century very much as he looked now on the superstitions of mediævalism, and could only feel that the impetus which was given to the belief in the theory and practice of Listerism was as unaccountable as its abandonment was certain. He could easily see urgent reasons why some surgeons who had given up the clamp and adopted the intraperitoneal method of treatment of the pedicle in ovariectomy desired to have a sort of umbrella under which to shelter themselves, and that therefore they jumped at Listerism and adapted it for this purpose. But there could be no question, from the facts and figures adduced by Dr. Bantock in his address, that this so-called system of antiseptic surgery had nothing whatever to do with the recent successes and advances in abdominal surgery. Like Dr. Bantock, he (Mr. Tait) had adopted the argument and reduced it to an absurdity, and had gone through all the gymnastics of the system, with plain cold water and a simple steam spray, with increasing success. Even these imitations he had entirely given up, and still his success increased. Dr. Bantock's attitude was now entirely justified by the facts of the case, and the system which claimed a position as a royal road to surgical success had necessarily

degenerated into a system of quackery in which there were being used secret preparations and materials the names of which were refused.

Dr. R. BARNES seconded the proposal, which was carried by acclamation.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, FEBRUARY 9, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT, IN
THE CHAIR.

PRESENT: 29 Fellows, 4 Visitors. The following were elected Fellows of the Society: Dr. C. S. Murray; Dr. B. L. Tandy; Dr. F. Manser; Dr. J. F. L. Whittingdale; Dr. T. Richmond; Dr. S. L. Cook; Dr. C. Boyce; Dr. J. T. Jones; Dr. F. E. Pocock; Dr. F. F. Walker; Dr. A. Bowie; Dr. J. Shaw; Dr. A. F. Dimmock; Dr. J. Beckett; Dr. E. Wilson.

The following was proposed for election: Dr. William McMullen, London.

Before commencing the business of the evening, the PRESIDENT said it was his melancholy duty to announce to the Society the loss they had sustained in the premature death of one of their Honorary Fellows, viz. Professor Schroeder, of which event he had received intimation only that evening. He thought it would be a graceful act for the Society to take cognisance of that fact, and to pass a resolution of sympathy with the family of the deceased, and he would be very glad to receive such a resolution and to put it to the meeting.

Dr. ROBERT BARNES proposed that a vote of condolence be forwarded to the family of the late Professor Schroeder.

Dr. BEDFORD FENWICK said that such a resolution as had just been proposed and seconded needed no support in that Society, where Professor Schroeder's name was a house-

hold word, and where every Fellow present knew how much he had advanced our special knowledge both in theory and in practice. But Dr. Fenwick would venture to most earnestly support the resolution on somewhat private and personal grounds. The mover and seconder had gracefully alluded to Schroeder's great merits as a physician, a gynæcologist, and a scientist. Dr. Fenwick would only speak of some attributes of his as a man. During his student days in Berlin he should never forget the impression Professor Schroeder made upon him. Careful in treatment of his patients to an unusual degree in a German, he used them with all the national thoroughness for his own study or for teaching the large class who always attended his clinic. But it was to those members of the class who were strangers and foreigners that he showed the most instructive cases, or explained most carefully the most unusual conditions; and many an Englishman or American now looked back to those mornings at his clinic, and gratefully acknowledged how much of what they knew at present of our special art was due to his careful, ever willing instruction and help. And Dr. Bedford Fenwick and many others would never forget how the Professor made an especial point of finding out those of his class who were friendless and unknown in a foreign land, and by his ready sympathy and advice, never-failing courtesy, and frequent hospitality made them forget their loneliness and feel that at any rate they had one staunch friend in the great city they were passing through. Dr. Fenwick was deeply grieved to hear of his respected and admired friend's death, and greatly wondered at the possible cause. His robust and healthy constitution should not have broken down so early. And in the last letter Dr. Fenwick received from him he wrote apparently, if not in good health, at least in high spirits. Dr. Fenwick was too grieved, and it was, moreover, unnecessary, to say more. But, with his affection and respect for the man, he felt he could do no less than pay this short and utterly inadequate tribute to Schroeder's memory, in the name not only of himself but of scores of others of the Anglo-Saxon race, who would ever most grate-

fully remember his kindheartedness and goodness to them when they most needed a friend and helper.

Mr. LAWSON TAIT seconded the proposal, with deep regret that it should be necessary, but with satisfaction in that he felt the Society should express its sense of the loss sustained by the death of Professor Schroeder. He had left an impression on the gynæcology of the last twenty-five years which would be imperishable.

The following specimens were exhibited and described by Mr. Bland Sutton:—

Non-descent of the Ovary.—It seems now to be an established fact that one of the most frequent causes of non-descent of the testicles is peritonitis in the foetus during intra-uterine life. The inflammation gives rise to bands of adhesions fixing the testicles in abnormal situations. Mr. Lockwood has pointed out that there is some connection between descent of the testis and the descent of the colon. The latter structure at one period of embryonic life is situated in the left iliac region and gradually passes upwards and to the right side, occupying a position immediately under the liver; from this situation it gradually descends to the right iliac region, its normal place. Should peritonitis supervene this remarkable journey is interrupted, and the colon may be permanently arrested in any part of the course. The most frequent spot for the arrest to be made is immediately under the liver. I have dissected four such specimens, and in all the testicle was adherent and unable to descend.

Last year I received from my friend Mr. Wightwick a female foetus with spina bifida which had survived its birth a few days. On opening it the abdominal cavity presented evidence of the most extensive peritonitis; the coils of the small intestine were glued together, and the colon lay under the liver and firmly adherent to the ventral aspect of the right kidney. The right ovary and Fallopian tube are firmly fixed by stout adhesions just below the crest of the ilium. The uterus, in consequence of the fixed position of the ovary, is drawn out of position and is in contact with the right side

of the true pelvis. The connection between the descent of the testis and colon is something more than casual. In several instances of congenital funicular hernia (right) I have found the vermiform appendix and cæcum in the pouch, and in two cases they were united to the testis and wall of the pouch by connective tissue.



FIG. 1.—The pelvis, with the kidneys, of a female foetus. The colon is fixed to the right kidney, and the right ovary is adherent to the peritoneum just below the iliac crest.

Misplacement of the Kidney.—‘In many instances misplacement of the kidney is but slight, and might be overlooked unless careful *post-mortem* observation be made; such cases have no clinical significance. But when the kidney occupies the iliac fossa, or rests on the promontory of the sacrum, between the rectum and bladder,

or by the side of the uterus, grave complications and troubles may be caused.’ (Morris, ‘Surgery of the Kidney,’ p. 17.) The specimen now to be described consists of the sacrum with the termination of the abdominal aorta. Suspended from the common iliac arteries by four vessels is a misshapen kidney. It lay exactly over the left sacro-iliac synchondrosis and was covered by the first part of the rectum. Three arteries entered at the hilum: one was derived from the left common iliac and two from the right common iliac artery. The vein entered the inferior vena cava midway between the point of confluence of the common iliac veins. The ureter is double for the first inch of its course. The kidney presented a somewhat lobulated appearance. This has induced some writers to state that, as a rule, when the kidney is displaced it retains the foetal lobulation. This is erroneous, for a glance at fig. 2 will satisfy anyone that the lobules are produced by the pressure exerted by the arteries on the renal tissue, and in no way can the lobulation

be regarded as due to the persistence of the foetal condition. Indeed, the fissures resemble certain sulci in the brain, which arise in consequence of the pressure exerted on the cerebral substance by veins — *e.g.* the fissure of Rolando.

The specimen described above was taken from a man, aged 30 years, who died of phthisis. The deformity gave rise to no inconvenience. The right kidney was normal in shape, size, position, and blood supply.

Since Mr. Henry Morris tells us that a misplacement of the kidney may be expected in about one in every thousand bodies, it behoves us, in these days of refined diagnosis in pelvic and abdominal surgery, to keep our minds awake to the fact that a kidney may simulate a tumour in the pelvis.

Intra-peritoneal Hæmatocoele.—The specimen is of some

interest in that it presents some unusual features. It consists of two ovaries with the Fallopian tubes which were removed from a married woman aged 26. She had three children, the last two years old. Since the last confinement she had suffered from pelvic pains accompanied by painful menorrhagia. Per vaginum an elastic swelling, of the size of a Tangerine orange, was felt to the left of the uterus, and Dr. Wm. Duncan, who had care of the case, thought it was a dilated Fallopian tube. Palliative treatment was tried for a long time, until the patient became anxious for radical cure; it was then decided to remove the left appendages of the uterus. After consulting with my colleagues I performed abdominal section. Upon

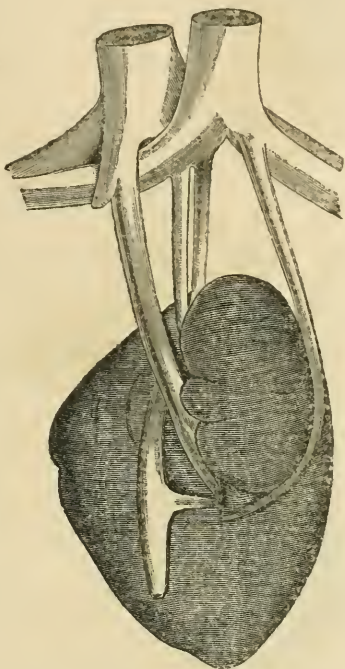


FIG. 2.—A kidney which occupied the left sacro-iliac synchondrosis.

drawing the left ovary and tube out of the pelvis, to everyone's surprise a fold of omentum came forth adherent to the ovary, and containing a quantity of coagulated blood. The ovary was occupied by several cysts, one of which had ruptured, and the blood was caught in a loop of omentum which



FIG. 3.—A cystic ovary which has burst. The extravasated blood was caught in a fold of omentum adherent to the ovary.

was adherent to the ovary. In this situation the clot had become, so to speak, encysted. The omentum with the ovary and tube were removed intact.

On examining the right appendages the ovary was found occupied by several cysts, and during manipulation, or immediately preceding the operation, one of these cysts had ruptured, and a small quantity of blood had found its way

into Douglas's pouch. The interior of the ruptured cyst was occupied with blood clot.

The patient made an uninterrupted recovery and lost all her unpleasant symptoms. The clinical portion of the case is very interesting, for Dr. W. Duncan displayed great skill in recognising the tumour. Several who examined the patient

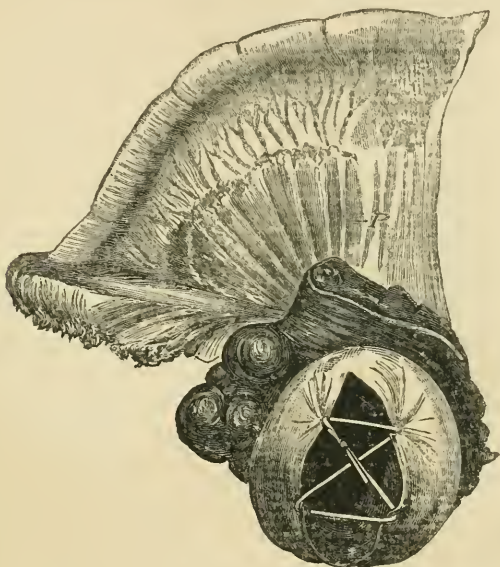


FIG. 4.—The opposite ovary, showing cysts. P. Parovarium.

failed to find any tumour, and as she lay under chloroform one physician even then failed to satisfy himself as to the existence of anything abnormal.

Dr. MEADOWS remarked that it was hardly possible to exaggerate the importance of the observations made by Mr. Bland Sutton. They are calculated to throw a flood of light on some obscure points in physiology and pathology, and he congratulated the Society on having secured the services of so distinguished a physiologist in the work which this Society has undertaken. He, however, ventured to criticise one remark of Mr. Bland Sutton, in which he expressed the opinion that the retention of the ovaries high up in the abdo-

men in a case where evidence of peritonitic adhesion existed in foetal life might also have led to the drawing up of the uterus by the ovaries. Dr. Meadows failed to see how the ovaries could exercise any such influence as this ; on the contrary, he thought that the displacement of the uterus upwards was brought about in the same way as that of the ovaries, viz. by peritonitic adhesion.

Mr. LAWSON TAIT showed a specimen of occluded tubes obtained by post-mortem examination by Dr. Henry Duncan Littleton, Medical Officer of the city of Edinburgh, and given by him to Mr. Tait. It showed well the ordinary condition of occlusion of both ends of the canals and the distension of their cavities by fluid. Such a condition of course rendered the patient absolutely sterile.

Mr. TAIT also showed the left tube and ovary which he had removed the same morning from a lady aged 23 ; from the same patient he had removed the appendages of the right side on July 26, 1883. The patient had had one child and had a long illness afterwards. He saw her and diagnosed pyosalpinx on the right side, and advised its removal ; she would not consent to it for some time, but, after making applications to various other practitioners and trying various other treatments, she got so ill that the operation had to be performed. The right appendages were found healthy and not removed. She made a good recovery. On May 14, 1885, she was found to have menstruated regularly ever since the operation, but had not had much pain until the last period. The uterus was somewhat fixed, and there was a lump on the left side very tender ; she could endure intercourse, and decided to wait for operation until she was worse. About six months ago her doctor, Mr. Hallwright, told me she was suffering again, and sent her to see me. I found that the lump on the left side had increased very much and was very tender, and I told her that, as soon as her sufferings became sufficient to justify a second operation, she must come and have it done. She got steadily worse, and applied to me about ten days ago, desirous of having the other side removed ; and this morning

I removed the appendages from the left side. The ovary was cystic and as large as an orange, the tube was distended, containing about an ounce and a half of pus.

This is one of the series of cases just about to be published which have occurred within the limits of the first one thousand cases of abdominal section which Mr. Tait had performed, and the conclusions of which are undoubtedly to the effect that, if the appendages of one side require removal, it is much safer to remove both sides.

Mr. REEVES and Mr. BLAND SUTTON joined in the discussion on the specimens.

On the Use and Abuse of Pessaries. By Dr. FITZGERALD.

It will not, I trust, be considered presumptuous that one who is not an expert should venture to introduce in this Society of Gynæcologists a discussion 'On the Use and Abuse of Pessaries.' My defence must be the great practical importance of the subject, and the hope of eliciting some definite principles for the guidance of those who, like myself, are not specialists. That there does exist a great diversity of opinion on this subject among leading gynæcologists is not, I suppose, to be disputed, and it must be remembered that cases of displacement crop up constantly in general practice and have to be decided offhand by the usual medical attendant without the advantage of the opinion of an expert. I confess that hitherto it has seemed to my unaided intelligence a matter of the simplest common sense, that when a body, be it uterus, humerus, or intestine, is dislocated, it should as soon as possible be restored to its place. The case is, of course, different when an organ, such as the womb, is bound down, as is too often the case, by inflammatory adhesions, and cannot, without undue violence, be replaced; but that it should be a matter of supreme indifference whether the uterus is pressing on the great sacral plexus, obstructing the rectum, or impinging on and irritating the bladder, or, worst of all, obstructing venous circulation, is to me incomprehensible. It

is on these points I seek to elicit some guiding light. That pessaries are, even now, used in a thoughtless and routine manner must be evident to all who have had opportunities of judging—indeed, an alum injection and a Hodge pessary seem with many to constitute the sovereign remedy for all the ills the uterus is heir to.

I have known the gravest consequences to follow forcible attempts to replace a retroflexed uterus bound down by adhesions, the result of para-uterine inflammation, and intolerable agony caused by the use of a pessary under such circumstances. Scarcely less philosophical is it to allow a pessary to press on a prolapsed and tender ovary, or still further to irritate an inflamed vagina. There are cases also in which they are inadmissible on physiological grounds, and others in which they press more injuriously on the rectum than did the fundus they replace. Pessaries of too large a size are often used, and I have seen dangerous ulceration result from their injudicious pressure. Often an unsuitable shape or description of instrument is selected, and the unfortunate patient has to endure all the evils, without any of the benefits, of an instrument. That pessaries are unsanitary inconveniences, and only to be employed to remove symptoms which cannot be relieved without their use, is, I think, an axiom few will deny. Some authors seem nowadays disposed to rank retroflexion with ante flexion, and to consider both as congenital. That a more or less anteverted position of the uterus is the normal one for most women I suppose no one would dispute, but, from my limited experience, I should be disposed to consider congenital retroflexion, or even retroversion, extremely rare. There is no doubt that a considerable amount of anteversion, or even ante flexion, may exist without producing any serious symptoms, but there are numerous exceptions in which the pressure on the bladder causes grave inconvenience, and if, in addition, a long cervix be sharply bent on itself, impregnation may be rendered difficult to the verge of impossibility. I do not think much good can be effected by using pessaries in cases of ante flexion,

although one may occasionally relieve symptoms by lifting and holding the whole organ higher up in the pelvis by a judiciously applied instrument. Personally, I have a holy horror of all sorts and descriptions of intrauterine stems and pessaries, and never, under any circumstances, use one.

There are so many forces in women tending to push the womb backward that we cannot be surprised that retroflexion is a commonly acquired condition. Even in health the constant lolling back in easy-chairs, bringing the weight of the uterus in a line with the outlet instead of the brim of the pelvis, the downward pressure of the bowels caused by tight-lacing, and the dragging weight of heavy skirts, the hard-hitting at tennis, and the leaden weight of masses of hard fæces in the small intestines, all tend to downward and backward displacement. The habitual constipation and overloading of the rectum so common with women is a fertile cause of retroflexion, not only from the violent straining at stool which results from it, but from the alternate distension and collapse of the gut which rock the uterus to and fro on its axis and render it extremely prone to topple back into the rectal fossa, partly from the force of gravitation, and partly, perhaps, from the partial vacuum created by a suddenly emptied bowel. I think most of us make a mistake in keeping women so long on their backs after childbirth, for although, of course, the lengthened and relaxed uterine ligaments should not too soon be put on the stretch, yet it is unphilosophical to allow the heavy uterus constantly to gravitate back into the hollow of the sacrum. Even during the first few days I think it is a good plan to let the patient sit upright for a very short time occasionally, to allow the uterus to get rid of clots, and during the first fortnight she should be advised to lie alternately on her side and chest, for if she does not the womb too often sinks hopelessly back only to be elevated with pain and pessaries. I believe the flatulent distension of the bowels so common in hysterical women to be another frequently overlooked cause of displacements, and again, the constantly recurring hyperæmia attending a long

series of unhealthy menstruations causes at last a condition of subinvolution second only in importance to that so often following childbirth. I confess that, contrary to some eminent authorities, I cannot help thinking that pelvic and para-uterine inflammations are more often the consequences than the cause of uterine flexions, from the interference with the venous circulation caused by the 'kink' in the neck of the womb. I must also venture to differ from those who regard stenosis of the neck, whether resulting from flexion or other causes, as of no importance in producing dysmenorrhœa, for although this condition may not materially retard the flow as long as it is fluid, yet it produces an almost complete stoppage as soon as clots are formed, and so causes uterine spasm or colic.

However, whatever theory we adopt as to the causation of flexions, there can be no question of the immediate relief to distressing symptoms caused by the replacement of a dislocated uterus. This is a practical point which we are not justified in ignoring, and there exists no doubt in my mind as to the advisability of restoring a prolapsed or retroflexed womb to its proper place unless there should be some decided indication for non-interference. I could cite scores of cases illustrating these views, but will content myself with two or three typical instances.

M. C., æt. 27, unmarried, was flooding profusely when I saw her; her lips and skin were blanched and anæmic, her pulse rapid and fluttering; there had been a constant sanguineous discharge for eighteen months, aggravated at the menstrual periods, for which she had been under treatment by a gynæcologist. I controlled the hæmorrhage by dram doses of the fluid extract of vinca major, of which I am rather fond. As her mother wished me to examine her I did so, and found the uterus large, congested, and low, the os hard and hyperæmic, and the fundus retroflexed into the hollow of the sacrum. I at once replaced the womb and kept it in position by a vulcanite Hodge pessary, and told the girl to lie a good deal on her chest. The bleeding ceased almost immediately

and did not return for a month. After her period she went home, and I heard from her father, a clergyman, about six months afterwards, that she remained perfectly well. I could quote cases such as this where profuse and too frequent menstruation has been cured by replacing an erring uterus ad nauseam.

I was consulted by an old lady of about 70 years; she had not walked for twelve years. The uterus was prolapsed, the os protruded $1\frac{1}{2}$ inch externally and was inflamed and ulcerated, the bladder was also prolapsed through the anterior wall of the vagina. I replaced both organs and inserted a vulcanite ring pessary, which retained them *in situ*, and injected the relaxed mucous membranes a few times with ergotin. I saw this lady three times at her own house, after which she walked to mine, a distance of quite half a mile. Of course such cases are common enough, and I only cite this one as a typical instance of the absolute necessity of occasionally employing pessaries. The following case impressed me very forcibly at the time. A girl of 25 had attempted suicide by strangulation and was cut down just in time. When I saw her she was in a state of profound melancholia, and her face was congested and ecchymosed and her eyes protruding. She had refused food for some days. She had not menstruated for six months, and for some months previous to that her periods had been irregular and painful. Her uncle, a medical man, had told her mother the girl ought to be examined, and she accordingly asked me to do so. I found the uterus more acutely retroflexed than I think I ever saw it; it was, in fact, impacted in the rectal fossa. I replaced the womb with a sound, not without considerable difficulty, for the poor girl struggled and bellowed like a wild animal, and inserted a Hodge pessary. Within ten minutes all the symptoms began to subside, and the patient took food willingly. When I called the next day the young lady met me on the stairs with a smiling face, said she was quite well, and she thought she 'must have been mad yesterday.' Her mother told me the menses had appeared. Now it may be

objected that this was simply a case of *post* and not *propter hoc* ; but I do not think so, for some six months afterwards this young lady came over to me from Boulogne with a partial return of her former symptoms. On examination I found the womb again somewhat retroflexed, the instrument not being long enough to keep it in place. I replaced the uterus and fitted her with a suitable pessary, since which time she has remained well. I will not weary you with a repetition of cases, of which the above are sufficiently good examples, but we may, I think, with confidence assert that, although pessaries are frequently employed without due discrimination, there can be no question of the immediate and often permanent relief they afford in suitable cases.

Dr. MEADOWS moved the adjournment of the discussion to the next meeting, remarking that he thought the prolongation of the meetings very undesirable, and that an adjournment was far preferable, especially as in the present case there was so much contentious matter in the paper just read, and he thought, therefore, especially having regard to the importance of the subject, that the discussion was likely to be somewhat prolonged, as indeed it deserved to be.

Dr. ROUTH seconded the proposal, which was carried.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, FEBRUARY 23, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT, IN
THE CHAIR.

PRESENT: 35 Fellows, 2 Visitors. The following was elected a Fellow of the Society :—Dr. McMullen.

The following were proposed for election :—Dr. T. C. Cameron, Montreal; Dr. Edgar Bulleid, London; Dr. Edward C. Bury, Wisbeach; Dr. W. Barter, Hull; Dr. David Ogden Jones, Toronto.

Dr. HEYWOOD SMITH exhibited a tumour he had removed the day before from a patient, a single woman, aged 35. He had had the patient under observation, off and on, for about twelve years. She was first under his care at the Hospital for Women for acute antelexion; subsequently she wore a Wynn Williams stem and shield with benefit. In 1881 her mother died of cancer of the rectum, after which she thought she had symptoms pointing to the existence of the same disease. She had diarrhœa, as if there was some irritation in the intestinal track. This was in 1885, when she had an attack of peritonitis. After this the uterus was fairly movable, and a tumour existed at one time about the middle of the abdomen, as if the omentum was affected, and afterwards lower in the pelvis. In December 1885 the tumour seemed softer, and the patient was losing flesh. In 1886 the tumour appeared less distinct. In the autumn she thought herself dying, and there was considerable distension of the abdomen. In December, after careful examination, the tumour could scarcely be detected, but in January 1887 it

was distinct, and was made out to be a fibroid outgrowth. It was considerably enlarged just before the period, and decidedly lessened afterwards. At the operation, on the tumour being drawn out of the wound, it burst in two places and bled freely. A long adhesion anteriorly, reaching towards the lower part of the os pubis, was ligatured in halves and cut away. The tumour, which sprang from the fundus uteri, rather towards the right angle, was clamped round its pedicle, which was thick, with Dr. Aveling's *serre-nœud*, which acted very well, and was secured at the lower angle of the wound. On a rough examination of the tumour it did not seem to present the usual characteristics of a uterine fibroid. It was soft enough to be perforated with the finger, and on section presented in its interior a substance that looked like the grey substance of the brain. It had a distinct capsule. Dr. Heywood Smith asked that it might be referred to Mr. Bland Sutton for microscopical examination. The patient is now (three days after the operation) doing very well, the temperature being about normal.

The PRESIDENT announced that he had written the following letter to Madame Schroeder:—

12 Granville Place, Portman Square :
February 12, 1887.

MADAME,—At the meeting of the British Gynæcological Society, held on the 9th inst., and of which your distinguished husband was an Honorary Fellow, it was my painful duty, as its President, to announce to the Society the loss which you and we have sustained by his premature decease. It was at once proposed by the Honorary President, Dr. Robert Barnes, seconded by the late President, Mr. Lawson Tait, supported by Dr. Bedford Fenwick, and unanimously resolved, that the President be requested to convey to the bereaved family the expression of sincere sympathy and condolence on the part of the Society. To this I may be permitted to add the expression of my own sense of personal loss in the death of your distinguished husband, who, though personally unknown to me, has long been familiar to me through his professional work—work of such a high order of merit that he was universally recognised as one of the most brilliant ornaments of our profession. It must be a source of great gratification to you to know that he was equally known and distin-

guished by his moral worth, and by his courtesy to strangers, who, through his fame, were attracted in large numbers to witness his professional skill and to profit by his teaching.

I have the honour to be, Madame, your obedient Servant,

GEO. GRANVILLE BANTOCK, President.

The following reply was received from Madame Schroeder:—

Madame Schroeder has the honour of expressing her warmest thanks to the President of the British Gynæcological Society for his kind letter of condolence of the 12th inst., which will always remain a grateful remembrance for her and her family.

The PRESIDENT then added that it might interest the Society to hear a very concise report of the cause of Professor Schroeder's death, as ascertained by a post-mortem examination made by Professor Virchow. For this report he was indebted to the kindness of Dr. Althaus, who extracted it from the last number of the '*Deutsche medicinische Wochenschrift.*'

Professor Virchow found that the cause of death was an old cerebral abscess which had become encysted, and had broken into the right lateral ventricle of the brain, causing acute purulent inflammation of the same. The cause of the formation of the abscess remained obscure, but from its contents Virchow concluded that it must have existed for several years past.

The PRESIDENT then expressed his regret at having to announce the loss, by death, of another of their Honorary Fellows, in the person of Professor Gallard, of Paris. Professor Gallard was a very successful lecturer on gynæcology, and one of the ablest representatives of this department of our art in the French capital. He (the President) presumed it would be in accordance with the wishes of the Society that a resolution of sympathy and condolence should be sent to the family of the deceased, and he would be glad to be the medium of conveying such a resolution, as in the case of Madame Schroeder.

Dr. FANCOURT BARNES wished to second the proposal of the President that a vote of condolence should be conveyed to Madame Gallard. He had the pleasure of her acquaintance, and had met the late Professor Gallard at Cork, when he (Dr. Fancourt Barnes) was Secretary of the Obstetric Section of the British Medical Association meeting in that city. He had enjoyed the privilege, on various occasions, of attending the clinic of Dr. Gallard at Paris, and had been much impressed by his knowledge of gynæcology and capacity for teaching it. Dr. Gallard was one of the foremost teachers of gynæcology in Paris, and his death was a distinct loss to the French School of Gynæcology.

Dr. MEADOWS, in resuming the discussion on Dr. Fitzgerald's paper, thought that Dr. Fitzgerald had exaggerated the importance of displacements of the uterus when he compared them to dislocations of the humerus or intestines, and he therefore differed with him as to the urgent necessity of, in all cases, resorting to their immediate rectification, and the introduction of some form of mechanical appliance to maintain it in its normal position. He thought it could not be doubted that there were a large number of cases of uterine displacement which really gave rise to very few and comparatively unimportant symptoms, which therefore really required no mechanical interference. At the same time, he quite admitted that in most cases of uterine flexion there was considerable distress and suffering, arising, as he believed, less from the flexion than from the other attendant conditions—viz. congestion, inflammation, enlargement, &c.—and it was this that required treatment first of all, mechanical reposition and the introduction of any form of pessary being afterwards resorted to. Many years ago he had combated the so-called mechanical system of uterine pathology which Dr. Graily Hewitt had so ably and consistently propounded and practised, but he (Dr. Meadows) believed that this was an entirely erroneous system of uterine pathology, founded on wrong premisses and ignoring anatomical facts. He then referred to and described the arrangement of the blood-vessels, some

points of which he thought were not sufficiently kept in view, and notably the fact that the arterial supply is not derived from one source only (that of the uterine artery), but that the fundus was supplied also by branches of the spermatic artery as well as a branch of the epigastric artery going along the round ligament; and as is the arterial supply so is the venous exit; and, consequently, the blood from the fundus, not travelling back to the cervical portion of the uterus, but going off horizontally, as it were, to the bulb of the ovary, could not be prevented doing so even if acute flexion did exist, and therefore this malposition did not occasion strangulation, and did not interfere to prevent the return of blood from the fundus. Consequently, the reposition of the uterus was not on this account so imperatively called for as the author and other authorities seemed to think. These views, Dr. Meadows said, he had promulgated many years ago, and his larger experience only tended to confirm and strengthen them. At the same time, he fully recognised the value of pessaries, and he dissented entirely from the view put forward by Dr. Fitzgerald when he said that he had 'a holy horror of all sorts and descriptions of intrauterine stems.' Dr. Meadows, on the other hand, was fully convinced that in many severe cases of flexion no simple *vaginal* instrument could possibly command the flexion, and only an intrauterine stem met the requirements of such cases. He had used many hundreds of these, and was quite satisfied that, with proper precautions, they were perfectly safe and completely successful.

DR. ROUTH stated he must agree with Dr. Fitzgerald as to the anteverted uterus being the normal position of the maiden uterus. This had been proved by French anatomists upon well-selected statistical tables, more especially by Arran.

2nd. He also concurred with Dr. Fitzgerald that acute flexion of the uterus did take place after a fall, lifting a heavy weight, &c., giving rise to a great deal of pain, and which, if not at once reduced, might lead to inflammation or chronic flexion, but which, like a dislocated arm, if at once reduced,

was also at once cured and gave immediate relief to the patient. He was surprised to hear that Dr. Meadows had not in his vast experience met such cases, as he (Dr. Routh) had met several.

3rd. He concurred with Dr. Meadows also in believing that a congested uterus was often a cause of flexion. The top-heavy uterus simply fell backwards or forwards on some slight shake or exertion. But a simple flexion without congestion might also exist. It might be congenital, perhaps due to want of tone, but unless complicated by congestion or inflammation, induced by gonorrhœa or vaginitis, or a violent cold, or traumatic injury, such cases needed no treatment. Except as a cause of sterility, they gave no pain, and, unless procreation was desired, they need not be interfered with.

4th. He also concurred with what Dr. Meadows had stated, that Hodge pessaries were often introduced and only fitted into the bend of the flexion, in no way replacing the organ. It was also true that, even in this supposition, they sometimes gave great relief. But Dr. Meadows had not given two at least of the reasons for this relief, and Dr. Fitzgerald had also not insisted on these very important points: First, that in every case of flexion or even version, there was always also a certain amount of prolapse of the uterus itself. He (Dr. Routh) often (when symptoms which might be due to flexion were described to him by his patients), before putting them upon the bed, examined them in the erect position, and he had frequently found the uterus within one or two inches of the vulva. But, secondly, much also depended on the length of the vagina and the inadequate length of the Hodge pessary used. He had found in some fat women that the vagina was seven inches long, perhaps more; in others only four inches, and even less. Necessarily in such cases we needed longer or shorter Hodge pessaries. It was essential, therefore, first to measure accurately the vagina before their application.

This partial prolapse might arise in the uterus from congestion or previous inflammation, and in which no version

existed. Now these cases were effectually relieved by Hodge pessaries, because they replaced the organ in as far as the prolapse was concerned, and relieved the dragging on the ligaments of the uterus. In such cases, because the uterus was lower down, the organ lost the support also of surrounding parts, and for this very reason, once in the true pelvis, was more prone to flexion. This was one of the ways in which congestion became a cause of flexion.

5th. But even in these cases, where the bend was so complete that the distal end of the pessary almost always got into the flexion, which sometimes might be due to a movement of the body (such as bending downwards while on the knees), if this distal end were made very thick by some padding material, such as an indiarubber bag, especially when this was filled with glycerine, after Dr. Godson's plan, so that its contents did not escape, the uterine flexion was in this manner more rounded off, and being made less acute, great relief was afforded to the patient.

6th. Dr. Fitzgerald had carefully avoided the subject of intrauterine pessaries, and so would he, especially as he hoped to bring the subject of very severe cases of flexion before the Society in a paper at some future time, and the various methods of cure, &c., or treatment. He would therefore say only, that he concurred fully in all that Dr. Meadows had said. Intrauterine stems were, under proper contingencies, and with necessary precautions, quite a safe process. Dr. Meadows had himself devised an instrument which in some respects fulfilled the double object of raising the uterus as well as correcting the flexion by an internal stem. Dr. Routh had preferred his own instrument, the buckle pessary (a combination of a Hodge and of the internal stem); but here also the length of the internal stem as well as of the Hodge portion of the pessary should be well looked to, or it would fall out, or the stem come out at least of the uterus.

When all these details had been carefully attended to, then indeed we should often find that the old adage he (Dr. Routh) so recommended, 'Be ye fruitful and multiply,' was

splendidly carried out, even in couples who had been sterile for years, with success.

Dr. MANSELL-MOULLIN said that he could fully endorse all that Dr. Fitzgerald had said in his most interesting paper. It was a matter of regret that such various opinions were held by experts on the subject. It was quite impossible for those who sought information, but who, at the same time, had but limited opportunities of acquiring practical experience for themselves, to come to any definite conclusion, and it was most desirable that some definite and authoritative statement should be laid down for their guidance. The various views held with regard to the action of the Hodge pessary might be taken as an example. It was generally taught, and accepted without question, that the action of this pessary was that of a lever. A moment's reflection would show the impossibility of this. How could a fulcrum be obtained in the soft and yielding vagina, and how could the symphysis pubis act as a power when it was really a fixed point? Yet with such a theory in view it had been stated to be good practice to insert a pessary even when the uterus was bound down by adhesions. The gentle leverage exerted by the Hodge would tend to raise the fundus uteri, the adhesions put on the stretch would be absorbed in course of time, and the uterus eventually restored to its normal position, the pessary triumphant. Nothing could be farther from the truth. As Dr. Fitzgerald had ably expressed it, and as any one with practical experience knew, patients of this description were most intolerant of pressure. The presence of a pessary gave rise to so much heat and pain that in the course of a very few hours the removal of the instrument became a matter of necessity.

Briefly, the action of the Hodge pessary was twofold. It prevented the fundus uteri from falling backwards, rising behind it and acting in the manner of a railing, and it also raised the uterus in the pelvis in so far that, when the vagina was prolapsed, it restored it to its natural shape, and so drew the cervix upwards and backwards.

As long as the vagina maintained its normal position in

the pelvis as a collapsed tube, anything placed within it, whether a pessary or lump of cotton, remained there passively. If it had a tendency to move either way, it was upwards into the posterior cul de sac. If this cul de sac was sufficiently deep to allow the upper part of a Hodge pessary to rise well behind the uterus, it acted, as before said, in the manner of a railing and prevented the fundus from falling back. When the cul de sac was too shallow to permit this, the fundus of the uterus, without being replaced, merely rested on the top of the pessary, which then failed in its purpose. When the cul de sac was very large, or the pessary employed too small, the uterus was occasionally observed retroflexed in front of the pessary. The second class of cases constituted a group the treatment of which often presented a task of considerable difficulty, and included in its number those cases which might be considered congenital, in which with a retroverted uterus the vagina was almost invariably found to be small and short. Such cases were very far from being uncommon. A retroverted or retroflexed uterus was almost always at the same time prolapsed, or situated lower in the pelvis than when in the normal position. The two conditions, retroversion and prolapse, were practically inseparable. A pessary which accurately fitted the vagina and restored it to its natural position, had also the effect of raising the uterus by drawing the cervix upwards and backwards. This was the case as long as the vagina was not greatly dilated as well as prolapsed. When this was so, the pessary, having no support, merely rolled about in the cavity of the pelvis, and if a larger one was inserted, inconvenience arose from its causing pressure on the rectum. Support had then to be given the uterus in some other way. Pessaries such as the watch-spring ring and the Zwank pessary, each having its own peculiar advantages and finding a resting-place on the bony outlet of the pelvis, were then found of service. With regard to the use of stem pessaries he was again in accord with Dr. Fitzgerald; he looked upon them as a last resource, to be used with great care, and only when other means had failed.

Dr. HEYWOOD SMITH said : I think this discussion a very important one, as it gives an opportunity for this Society to speak with some authority, and so help practitioners to a right line of treatment in these cases of flexion, which, though at first they may appear easy, often prove very tedious and baffle many attempts at rectification. With regard to the point Dr. Meadows referred to, as to the condition of the uterine walls in cases of flexion not affecting the circulation, while agreeing with his explanation, I would point out that the bending of a tube, as it were, does not affect its walls so much as the calibre of its cavity. So it is more than probable that the cavity being pinched in at one part, a hindrance occurs both to the circulation in its lining membrane, the secretion of its glands, and also to the proper expulsion of its contained secretions. I quite corroborate what has been said as to the frequency of the uterus bending itself over the upper bar of a Hodge pessary, and I would strongly impress on those practitioners whose experience of these cases is not large, never to insert a pessary with the view of rectifying a malposition. In every case the uterus must first of all be replaced, and the pessary introduced to maintain it in its normal position. While here speaking of the Hodge pessary I would warn practitioners against using block-tin pessaries, as, if left in too long—and some patients are very reckless as to this point—they will eat their way into the vaginal walls much more readily than celluloid or indiarubber-covered pessaries. I have on several occasions had to cut out pessaries when the vaginal wall had grown over them to the extent of an inch or more.

With regard to intrauterine stems, no doubt it is very dangerous to insert them without first of all preparing the uterus to tolerate them. The patient should be kept in bed and the uterus depleted, and glycerine plugs and hot injections used before any attempt is made to introduce a stem. As to their use, it is manifest that, as the uterus is a mobile organ, if it is strongly curved any attempt at mere alteration of position has no effect on its curve ; this applies more espe-

cially to cases of antelexion. In these cases a permanent cure can hardly ever be effected unless the uterus is maintained in a straightened condition by an intrauterine stem.

As to the normal position of the uterus in the pelvis that Dr. Meadows referred to, he will find in the museum of the Hospital for Women the section of the pelvis of a foetus where the uterus is seen, its cervix as long as the body, in a state of antecurve, this curve not following entirely the pelvic curve. I do not think Mr. Lawson Tait's proposition to suspend a cadaver for some hours prior to freezing it and making a section likely to give a truthful result ; for in the cadaver all the parts are lax, and lack the firmness of living tissues, so that the force of gravity altering the relation of the parts the organs would not be found in the position they maintained during life.

Dr. EDIS thought the discussion could not be profitably prolonged unless it was kept in far narrower bounds than at present seemed likely. He thought it would be better to limit remarks to vaginal supports and not extend them to intrauterine stems.

Dr. FITZGERALD, in reply, said, according to his limited experience, he found anteversion to be more or less pronounced in at least three-fourths of the unmarried women he examined, and he still believed it to be the normal position. Recent researches in Germany had also proved anteversion to be the usual position of the foetal uterus. When he spoke of misplacements of the uterus being treated on the same lines as other dislocated parts, such as the humerus, and, he might have added, hernias, he did not mean to compare the parts anatomically, but merely to advocate the application of the same surgical principles. The uterus was, of course, a movable body bound down only at one fixed point, the cervix, on which it moved as in a 'ball and socket' joint. A certain amount of movement was therefore natural and desirable.

Dr. Meadows had spoken as though Dr. Fitzgerald advocated the employment of a pessary in every case of misplacement of the uterus ; nothing was further from his inten-

tion. The womb might be, and often was, misplaced without causing any symptoms whatever, but he contended that, when grave symptoms resulted from such displacement, it should be at once rectified.

What Dr. Meadows had stated as to the vascular supply of the uterus was perfectly true, but Dr. Fitzgerald maintained that, practically, flexions ordinarily did produce congestion, not only by altering the calibre of the vessels on the constricted part, but by pressure on the cervical glands, by retention of secretions and by interference with menstruation, and that these evil effects disappeared when the uterus was replaced. It had been asserted that a Hodge pessary frequently failed to rectify a retroflexion, and merely got wedged into the angle formed by the flexion ; this was, no doubt, often correct, but it could be guarded against by proper precautions. Dr. Fitzgerald did not content himself with using the sound only to replace a retroflexed uterus, but always passed it a second time while the pessary was *in situ*, and never considered a misplacement remedied unless this could be done. No doubt Dr. Routh and Dr. Meadows had good grounds for their assertion that intrauterine stems were both useful and safe under certain conditions of rest and depletion, but his own experience of them was limited to cases in which he had had to remove them in consequence of the inconvenience and inflammation they had caused. He had rarely met with cases which could not be cured without their use.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, MARCH 9, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT: 33 Fellows, 3 Visitors. The following gentlemen were elected Fellows of the Society:—Dr. J. C. Cameron, Dr. E. Bulleid, Dr. E. C. Bury, Dr. W. Barker, Dr. D. O. Jones.

The following was proposed for election:—Dr. A. E. A. Pettingill.

The PRESIDENT announced that he had conveyed to Madame Gallard the resolution of sympathy and condolence passed at the last meeting of the Society in the following letter:—

12 Granville Place, W.:
Feb. 26, 1887.

MADAME,—At the meeting of the British Gynæcological Society, held on the 23rd inst., and of which your distinguished husband was an Honorary Fellow, it became my painful duty as its President, to announce the loss which the Society had sustained by his death. It was at once proposed by Dr. Routh, seconded by Dr. Edis, supported by Dr. Fancourt Barnes, three of our Vice-Presidents, and unanimously resolved that the President be requested to convey to the bereaved family the expression of sincere sympathy and condolence on the part of the Society.

In conveying this resolution to you, I ought to mention that it was moved in terms highly appreciative of your husband's great merit as a gynæcologist, of the eminent service he had rendered our art both in his practice and by his teaching; and of the loss which our profession in general and our Society in particular had sustained, and at the same time eloquently expressive of sympathy with you in your

great affliction. And while one spoke of your distinguished husband from the knowledge which is common to the members of our body, another was able to draw from his personal knowledge of his character and worth. It will at least be a melancholy satisfaction to you to know how much he was appreciated, and that his work remains behind him as a silent but expressive testimony to his eminent qualities.

I have the honour to be, Madame,

Your obedient Servant,

GEO. GRANVILLE BANTOCK,

W. C. Grigg, M.D.

J. A. Mansell Moullin, M.D.

} Secretaries.

President.

Dr. SPANTON showed some speculums made of fine porcelain and lined with platinum. They can be made of any size or shape required, have the advantage of being much stronger than glass, very easily cleaned, affording a good light, and are unaffected by acids and the ordinary corrosives. They are particularly well adapted for hospital work.

Also some pessaries made on the principle of the ring pessary, but having a pad at each end, which renders them more comfortable to wear than an ordinary hard pessary.

Dr. BARNES objected to tubular specula on the ground that they acted by pushing the uterus up out of easy reach, by elongating the vagina, and only giving a very limited view of the vaginal portion. As a diagnostic aid they were very imperfect, and as an aid to treatment they were inefficient. The proper principle was the bivalve, with blades expanding after introduction. The blades so diverging opened up the lax fundus of the vagina, bringing the uterus low down within reach of finger if necessary, and by parting the lips of the os uteri enabled one to see the condition of the lower part of the cervical canal. The most useful speculum for diagnosis and treatment was his (Dr. Barnes's) double crescent speculum. This put no greater strain upon the vulva than any other speculum, whilst it gave far greater command of the vaginal portion. It did not require an assistant.

Dr. ROUTH was much surprised to hear Dr. Meadows state that a speculum three inches long would suffice for the

exploration of all uterine cavities. If the ordinary length of the vagina was from five to six inches, abnormally it might reach eight, and perhaps more, when drawn upwards by disease in the uterus. At present he had under his care a Jewish lady, who was exceedingly fat, and in whom he could not feel the cervix with the finger, and in whom he was obliged to use a speculum eight inches long before he could see it. He was alluding to Fergusson's specula, of which the variety shown now was only a modification. If Dr. Meadows was right, he (Dr. Routh) could only conclude that the aristocratic ladies of his neighbourhood had shorter vaginas as a rule than elsewhere.

The PRESIDENT thought that those who still used the old-fashioned Fergusson form of speculum would find this form convenient; but for his part he had long abandoned the tubular speculum as very ill-suited for the general work of the gynæcologist. Ever since he had introduced the Neugebauer speculum to the notice of the profession at the Obstetrical Society, a good many years ago, he had entirely discarded the Fergusson. He could not refrain from saying that any one who supported the use of the Fergusson with the argument that it enabled him to use powerful remedies, such as escharotics, to the cervix, did not pay his own skill a very high compliment.

Dr. FANCOURT BARNES pointed out that the pessaries shown by Mr. Dunnett Spanton were made of soft india-rubber. This was the worst possible material for pessaries to be made of. If an indiarubber pessary were inserted into a healthy vagina it would almost certainly set up a discharge, generally a foul one, in the course of a few days. He thought that pessaries made of indiarubber should be rarely used for that reason.

Dr. ALFRED MEADOWS exhibited a specimen of uterine fibroma which he had removed by abdominal hysterectomy from a patient 34 years of age. The tumour weighed 8 lbs., and there was a history of uterine trouble, menorrhagia and pain, for upwards of three years. The patient had been

married 13 years, was sterile, and in addition to the menorrhagia, which had greatly increased the last two years, there was severe dysmenorrhœa. The top of the tumour reached one inch above the umbilicus, it rose centrally out of the pelvis, and below the tumour the uterus could be gripped with the fingers, as if not much enlarged in that situation. The uterine sound gave a measurement of four inches, the tumour not invading the pelvic cavity, the cervix being felt quite normal in size and entirely free of the tumour. The diagnosis, therefore, was that the tumour was a uterine fibroid growing chiefly from the fundus and upper part of the body of the uterus, in fact, a typically easy case for abdominal hysterectomy. Accordingly, Dr. Meadows removed the growth without any special difficulty, including both ovaries and tubes, and applying the wire before the tumour at above the level of the internal os, there was considerable dragging on the serre-nœud, which caused some little suffering and sickness; but the temperature never rose above $99^{\circ}8'$, and that only for an hour or two on the day following the operation, the average being from the normal up to 99° , and the pulse has never reached 90° . She is now convalescent. The pedicle was treated by the extra-peritoneal method.

Dr. HEYWOOD SMITH said, as regards the treatment of the pedicle in cases of hysterectomy for fibroids, as Dr. Meadows had referred to the serre-nœud, Dr. Heywood Smith would ask the President what he thought of a suggestion recently made by Mr. Lawson Tait, that the serre-nœud should be removed on the fourth or fifth day, as his experience was that it did not come away usually till the sixteenth or eighteenth day. Dr. Smith would like to know whether there was not some risk of secondary hæmorrhage in this early removal of the serre-nœud.

The PRESIDENT said, in answer to the appeal of Dr. Heywood Smith, he was not in favour of the early removal of the serre-nœud. He did not think there was danger of hæmorrhage from doing so, i.e. after four or five days. He was most satisfied with his cases when he could leave it on

until the stump was quite loose, for if the loop was tightened from time to time and could be kept dry, the stump-hole gradually closed up, so that in removal of the instrument and stump, the stump-hole would be found of very small dimensions. On the other hand, if the instrument be removed early there is of necessity a very large hole left. But, after all, we had to be guided by circumstances. When the stump could be compressed into very small dimensions it dried up in a few days, and it was desirable to leave the *serre-nœud* on as long as possible, for it prevented any separating action on the sides of the stump-hole by the dragging of the broad ligaments when set free. It was evident that this was of greater importance in the case of a large pedicle which could only with difficulty be got dry, if at all. In such cases he was in the habit of trimming the stump after five or six days, while the *serre-nœud* was at the same time carefully tightened. If, however, as was apt to occur in the case of a very fat subject with a very short pedicle, there should be much discharge from the wound surrounding the stump, then it might be very desirable to remove the *serre-nœud* after a week, and to trim the stump correspondingly, so as to allow of the free escape of the matter.

On the question of the intra-peritoneal versus the extra-peritoneal method of treatment of the pedicle, he pointed out that his first case was treated in the way which has since taken partial root in Germany, but the result did not encourage him to repeat it in similar cases, while the attempt to employ the intra-peritoneal treatment of a pediculated tumour in several cases had to be abandoned for the much safer extra-peritoneal method. In proof of this statement he would point out that the only case of this kind treated with the intra-peritoneal ligature died from hæmorrhage, while those treated extra-peritoneally, *thirteen* in number, *had all recovered*. He thought he was safe in affirming that the combined results of Keith, Hegar, and his own practice, with the extra-peritoneal method, were far superior to those of any one, or any combination of operations by the intra-peritoneal method, and

although Mr. Spanton was able to congratulate himself—and he (the President) sincerely congratulated him—on the result of the case he had referred to, he ventured to say that when Mr. Spanton had done an average series of, say, a dozen cases, he would not be heard advocating the intra-peritoneal method with the same confidence.

Vaginal Hysterectomy for Malignant Disease. Three Cases with Recovery. By Dr. F. A. PURCELL, Surgeon to the Cancer Hospital.

CASE I.

Mrs. M. A. Gates, aged 40, married, was admitted into the Cancer Hospital on September 15, 1884. A strong, well-nourished woman, mother of five children, youngest four years old; no family history of cancer. Her illness commenced about five months back, and three months ago she had a small mass removed from the os by Dr. Archer. Now complains of pain at the bottom of her stomach, has difficulty in walking, and suffers from severe losses.

The vagina is occupied by a papillomatous growth attached to the os and left vaginal wall; being excessively vascular, bleeds on the slightest digital examination.

On September 23 anæsthetised by Mr. Bailey and placed in position; the platinum wire was manipulated around the base of the tumour on a line with the internal os, and the galvanic écraseur fixed. The growth was removed without loss of blood, in size about that of a cricket-ball. On examination it was found that all the disease was not removed. It was, with the consent of my colleagues present, decided to proceed to extirpate the whole organ, using cleanliness and all other antiseptic precautions. The peritoneum was opened in the anterior vaginal fornix; the fingers passed over the fundus turned it down anteriorly. It was brought down with comparative ease, a double ligature was passed round the broad ligament on the left side (taking care to avoid the ureter) and tied and clamped with pressure forceps, and divided; the left ovary and some pale yellow fat came into view. Still

drawing down the fundus, the right ovary then presented, and found in a cystic condition—about the size of a hen's egg—was tapped, and gently drawing it down it was followed by its Fallopian tube, along which were seen several smaller cysts; the uterine artery and broad ligament were tied and clamped with pressure forceps and divided, the ureter not included. The uterus and its appendages were still held by the walls of the vagina; these, being diseased, were peeled down, and, fixing the galvanic écraseur around, severed and released. Free bleeding from several of the posterior vaginal vessels, one very large, gave trouble. Mr. Jessett, passing his finger into the rectum, stretched parts into view, thus enabling the bleeding vessels to be seized. The toilet completed, a glass drain was inserted, and iodoformed wool tampons applied around the tube; the operation lasted one hour and a half. The peritoneal edges were not brought together. A self-retaining catheter was inserted in the bladder.

The uterus with its appendages was shown at the Obstetrical Society on the evening of January 14, 1885, when other cases and a paper were read by Dr. Wm. A. Duncan, and this case was published in full in 'The Lancet' of January 31, 1885.

The bowels were first moved on the thirteenth day: this caused the only rise of temperature ($100^{\circ}2$) that took place after the first five days from the operation. The temperature on the day after operation rose to $101^{\circ}4$ at noon, falling on the third day to 99° , and varied from 100° to $98^{\circ}6$ until the sixth day, when it dropped to normal, at which it remained, except when the aperient enema was given, which caused the rise to $100^{\circ}2$, to again as suddenly to drop to normal.

The catheter was removed altogether on the morning of the sixth day; for some little time she experienced vesical irritation. The patient was allowed up on the twenty-fifth day after operation. She ate well; all stimulants were discontinued after the fifteenth day. On examination parts were found healthy and smooth, the finger feels a transverse cicatricial band in the vaginal fornix, with no special contraction of the vagina.

She left hospital on November 4, forty-second day after operation.

On December 8 patient came to the hospital and was detained the night, so as to give my colleagues an opportunity of examining her; the walls of the vagina were smooth and no recurrence of disease could anywhere be discovered. She presented herself afterwards on several occasions, but by a letter received this week from a daughter I learn that death took place on August 7, 1885, ten months and a half after operation, and the daughter says, 'Her life as long as it lasted was enjoyed by the whole of us.'

CASE II.

Mrs. Maria Guy, married, of 45 York Road, Battersea, aged 42, admitted into the Cancer Hospital on October 16, 1885. A thin, delicate female, the mother of six children. Has been losing flesh; in April last believed herself pregnant; in July had a flooding, and again another a week prior to admission: these and her general wasting and declining state of health made her seek advice.

No family history of cancer; her mother died of heart-disease, and father lived to 70.

Epitheliomatous disease was found occupying the vagina, growing from the posterior lip of the os and body of the uterus, extending on the posterior wall of the vagina; the uterus being freely 'movable,' no extension of glands to be felt.

Extirpation of the uterus suggested itself, and the operation was proposed and duly explained, and having consulted with her husband and friends, patient consented. Accordingly—

On October 20 she was put on the table and anæsthetised and placed in position. Heywood Smith's duckbill speculum was inserted in the posterior fourchette of the vagina, and the uterus drawn down by means of a hook fixed into the anterior lip. An incision was made through the mucous membrane around the neck, well above the disease; the mucous membrane

was dissected upwards by touches of knife and point of finger. Here my assistant laid hold (as he thought) of the uterus with a subcellum, which tore out ; some water began to flow. An accidental tear into the bladder being recognised, attention was at once directed to rectify the misadventure. The rent admitted the point of the finger, which exposed a second hole ; both were carefully closed by seven fine silver wire sutures ; the bladder was now injected and found staunch, the peritoneum was sutured anteriorly, and the uterus drawn down with the fingers, the broad ligaments tied ; no bleeding of any account took place. The ureters were not included, being well searched for ; the cavity was plugged with five wool tampons with strings attached to surround the glass drain tube, and a self-retaining catheter was passed into bladder. No attempt was made to bring the peritoneal edges together.

October 21.—The catheter fell out during the night and the draw sheet was found wet. My house surgeon drew off a half pint of urine ; the bladder rent appeared staunch ; the vaginal drain and the catheter in the bladder were connected with separate basins under the bed, the ends weighted under carbolised water, the tampons were renewed and parts dusted with iodoform crystals.

October 22 (second day).—Draw sheet was dry after the night, 15 oz. of urine passed through the drain, and about 2 oz. of dark catamenial-like discharge oozed through the vaginal drain ; parts were syringed out with iodine water (ʒiij. to Oij.), as also bladder.

October 23 (third day).—Draw sheet wet, 5 oz. of urine drawn off, and 8 oz. passed by the drain.

October 24.—Draw sheet wet, 19 oz. of urine passed per drain.

October 25.—Draw sheet wet, 25 oz. per drain ; catheter had fallen out.

October 26.—Draw sheet dry, 27 oz. saved.

October 27.—Dry, 25 oz. saved, bowels moved.

October 28.—Dry, 26 oz. saved, sp. gr. 10·25 ; all along there has been a muco-purulent deposit ; the injection of

iodine water has been continued night and morning both into the vagina and bladder and parts dusted with iodoform. Moved to-day from special ward to general ward.

November 1.—Dry, 38 oz. urine saved ; 2 gr. of quinine to the pint of water substituted for the bladder injection.

November 2.—Patient now passes water herself; catheter wholly removed ; all well.

November 20 (thirty-one days after operation).—Intending to leave on the morrow. Parts were examined. The vaginal walls have cicatrised, forming a *cul de sac*, the wire sutures remain *in situ*, urine clear and normal, free of albumen ; the sutures were not at this time removed, at patient's special request. Temperature the night of operation was $99^{\circ}6$, next day fell to normal, but rose in the afternoon to $100^{\circ}2$; the third day it varied between 99° and 100° ; the fourth day between 99° and $99^{\circ}6$; fifth day, morn, $96^{\circ}8$, eve, 99° ; sixth day, $97^{\circ}8$ to $96^{\circ}6$; seventh day, $97^{\circ}2$ and $98^{\circ}6$; from this on it ranged normal.

The uterus was laid before the Gynæcological Society at its meeting November 25, 1885; it showed that the disease grew from the posterior lip and neck upwards, which had extended laterally on to the vaginal walls ; a probe passing through the os to the fundus measured a depth of $2\frac{1}{4}$ inches. The growth is epitheliomatous.

This patient is now in perfect health, seventeen months after operation, and occasionally attends out-patient department of the hospital for small ailments, and whom I would be pleased to show any visitor. A curious feature in her case is, when she returned home with the silver sutures *in situ*, she had connection with her husband that night, which was repeated without any harm taking place either to herself or him, and she confesses connection is of constant occurrence ever since. She has greatly improved in appearance.

CASE III.

Removal of uterus per vaginam, with both ovaries and one tube. Mrs. Mary Woods, married, aged 29, of 2 Savoy

Buildings, Strand, admitted to Cancer Hospital, February 7, 1887.

The mother of five children, the last five years ago. Suckled them all. She had good confinements with good gettings up. A dirty watery vaginal discharge came on about five months ago, which afterwards turned pink ; two months back had two severe floodings, and had another on admission to hospital. She attended during the last three or four months at the Soho Square Hospital for Women under Dr. Mansell Moullin ; getting bad she applied to be admitted ; from want of a bed she had to be recommended on to Middlesex ; failing to get in there, she presented herself to my colleague, Dr. Snow, who transferred her to my care.

A large growth was found to occupy the vagina, growing from the anterior lip of the os, smooth on its surface, ulcerated at its depending portion ; the posterior lip, being crooked, admitted the finger up the site of the os into the neck ; disease extended on to the wall of the vagina posteriorly and to the right. The broad ligaments seem healthy and no abdominal enlarged glands are to be felt.

Patient has a pleasing countenance, youthful, of a placid disposition, and wishes much to be cured, and ready to submit to anything for her good. Has no family history of cancer or of syphilis ; husband is a sailor, the children are healthy.

On February 12 she was anæsthetised by Dr. Bowen and got into position. The vagina being douched out with carbolised water, the bladder was emptied by a catheter, which was retained ; the platinum wire of the galvanic *écraseur* was encircled around the base of the tumour, having first passed a curved Wood's needle through the neck about the level of the internal os, to act as a guide for wire. On working the *écraseur* the wire broke ; the separation was then continued by means of Emmet's scissors ; the uterus was found to be diseased above the line of incision, being that of the internal os. It was self-evident that nothing less than total extirpation would be of any good.

Consequently the peritoneum was entered anteriorly. The

bladder being freed out of the way, the finger, making room, was passed around the broad ligament on the left to make sure that the ureter was in no way brought down; the broad ligament was minutely examined between the fingers; an aneurism needle armed with No. 4 silk was insinuated on the finger; the ligature included the broad ligament *en masse*. To prevent the ligature slipping and any secondary hæmorrhage occurring, two pressure forceps were applied close up to the ligature; the structures were then divided, the uterus was gently brought down, the left ovary slipping into view; a sponge was passed up to keep back the bowel; the fingers, now passing over the fundus, freed the peritoneum, and drawing down the uterus brought the right broad ligament into view, which, being tied and clamped, was cut; this allowed the right ovary and Fallopian tube to slip down. No bleeding so far showed.

The vaginal wall on the right and posteriorly being diseased, was dissected down by the finger-nail and by snips of the scissors. The lot was got away; some bleeding vessels here gave a little trouble, which were tied. Forceps and sponges being removed, parts were douched out with carbolised water and dried, dusted with iodoform, and two wool tampons, iodoformed, were inserted, thus completing the operation. One duckbill speculum held posteriorly and the fingers of my assistants were the means employed to dilate the parts. Mr. Elam and Mr. Dove kindly gave me their assistance.

The specimen shows the neck and body of the uterus occupied by scirrhus, verified by the microscope; the two ovaries and one Fallopian tube are *in situ*, the fimbriated extremity presenting several small cysts.

Treatment.

February 12, 11 P.M.—Patient is comfortable. The two wool tampons are removed; the bowel adherent to the uppermost tampon is released and recedes; not much oozing; a glass drain is inserted and parts dusted with iodoform; urine drawn off. Pulse, 90; temperature, 99°·6 F.; 12 P.M., 99°·2.

February 13, A.M.—Patient slept from midnight till 2 A.M., took some iced water. Tube was removed and washed and reinserted, iodoform dusted. Temperature, 2 A.M., $99^{\circ}4$; 4 A.M., $99^{\circ}2$; 6 A.M., $99^{\circ}4$; 8 A.M., $99^{\circ}2$; 10 A.M., 99° ; 12 A.M., 99° .

P.M.—Slept at intervals; slight sickness at 6 P.M., when a teaspoonful of brandy in iced water was taken; complains of pain in chest, either from wind or iced water. Temperature, 2 P.M., $99^{\circ}2$; 4 P.M., $99^{\circ}2$; 6 P.M., $99^{\circ}6$; 8 P.M., $99^{\circ}4$; 10 P.M., 100° ; 12 P.M., $99^{\circ}6$. Urine was drawn off, 6 A.M., 8 oz.; 4 P.M., 3 oz.; midnight, 3 oz.; making 14 oz.

February 14, A.M.—Patient had seven hours' sleep; was given nearly every hour a teaspoonful of essence of beef-jelly; was at 2 A.M. in much trouble from wind, and vomited a small quantity of mucus, which gave relief. She was given a little peppermint water and a half-feeder of tea; vagina syringed out with corrosive sublimate solution, 1 in 1000, tube taken out and washed and reinserted, iodoform dusted. Temperature, 2 A.M., $99^{\circ}6$; 4 A.M., $99^{\circ}4$; 6 A.M., 99° ; 8 A.M., $98^{\circ}6$; 10 A.M., $98^{\circ}6$; 12 A.M., 99° .

P.M.—Troubled with wind; being in pain, was given an opium pill at 5 P.M. and at 9 P.M. Temperature, 2 P.M., 99° ; 4 P.M., 99° ; 6 P.M., $99^{\circ}6$; 8 P.M., $99^{\circ}4$; 10 P.M., $98^{\circ}6$; 12 P.M., $98^{\circ}6$. Urine, 6 A.M., 3 oz.; 6 P.M., 3 oz.; 12 P.M., 4 oz.; making 10 oz.

February 15, A.M.—Had a restless night, troubled with wind, was sick, vomited some green and yellow mucid fluid, slightly streaked with blood; was given a little peppermint; vagina syringed. Temperature, 2 A.M., $98^{\circ}8$; 4 A.M., $98^{\circ}6$; 6 A.M., $98^{\circ}8$; 8 A.M., 99° ; 10 A.M., $98^{\circ}8$; 12 A.M., $98^{\circ}8$; gr. ij. of valerian of zinc in pill to be given three times a day.

P.M.—Had some four hours' sleep, complains of headache, vomited a little, has taken toast-water, Brand's essence, and a feeder of tea; vagina syringed out with a solution of equal parts of glycerine and spirit, drain taken out, washed, and replaced; wind troublesome, ordered a turpentine fomentation and ʒij. of mist. albæ. Temperature, 2 P.M., $98^{\circ}6$; 4 P.M., 99° ;

6 P.M., 99°·8; 8 P.M., 99°·8; 10 P.M., 99°·4; 12 P.M., 99°·2. Urine drawn, 6 A.M., 3 oz.; noon, 4 oz., trace of albumen; 12 P.M., 4 oz.; making 11 oz.

February 16, A.M.—Had seven hours' sleep; troubled with wind; turpentine fomentation was again applied; ordered the following mixture three times a day: bismuthi trisnit. gr. x.; acidi hydr. dil. gr. iij.; tinct. nucis vomicæ, gr. x.; mucil. gum. ac. ʒss.; aq. menth. pip. ʒj. Temperature, 2 A.M., 99°·4; 4 A.M., 99°·6; 6 A.M., 100°; 8 A.M., 100°; 10 A.M., 99°·4; 12 A.M., 99°·8.

P.M.—Still troubled with the wind; has had stomach rubbed with chloroform liniment, which gave relief; was given a Bragg's charcoal biscuit. Temperature, 2 P.M., 100°; 4 P.M., 100°·2; 6 P.M., 100°·3; 8 P.M., 100°·4; 10 P.M., 100°·5; 12 P.M., 100°·8. Urine, noon, 3 oz.; 12 P.M., 5 oz.; making 8 oz.

February 17, A.M.—Had seven and a half hours' sleep; more comfortable; a warm-water enema was administered, pending its action the vagina was plugged with salicylic wool, bowels moved; allowed to see her friends to-day. Temperature, 2 A.M., 100°·4; 4 A.M., 99°·8; 6 A.M., 99°·5; 12 A.M., 99°·4.

P.M.—Very restless, troubled with the wind; was visited by two friends; ordered 20 gr. chloral hydrate. Temperature, 4 P.M., 100°·4; 8 P.M., 101°·6; 12 P.M., 101°·8. Urine, 6 A.M., 4 oz.; 12 P.M., 6 oz.; making 10 oz.

February 18, A.M.—Slept five and a half hours on the draught; ʒss. brandy was given; a rectal tube was passed which acted, and was passed again with effect. Complains of pain across the lumbar region which gives a catch to her breathing. Temperature, 4 A.M., 99°·8; 8 A.M., 99°·8; noon, 100°.

P.M.—Relieved; had bread and milk, Brand's essence; vagina douched. Temperature, 2 P.M., 99°·6; 4 P.M., 100°; 8 P.M., 100°·8; 12 P.M., 98°·6. Urine, 6 A.M., 18 oz.; noon, 3 oz.; the night, 10 oz.; making 31 oz.

February 19, A.M.—Slept eight hours; breathing better. Temperature, 4 A.M., 99°; 8 A.M., 99°·2; 12, noon, 100°.

P.M.—Temperature, 4 P.M., 100°·4; 8 P.M., 98°·6; 12 P.M., 99°. Urine, morn, 3 oz.; 1 P.M., 9 oz.; 6 P.M., 6 oz.; making 12 oz.

February 20 (eighth day), A.M.—Slept eight hours; discharge more than usual during night and which has a faecal smell; on syringing some fluid seems to come from the rectum. I passed a finger simultaneously into the vagina and rectum, but could find no aperture; during the operation the point of the guide-needle pierced accidentally the posterior wall of the vagina, where it may now be ulcerating. Temperature, 4 A.M., $98^{\circ}6$; 8 A.M., 100° ; 12 P.M., $100^{\circ}4$.

P.M.—Temperature, 4 P.M., 101° ; 8 P.M., 103° ; 12, night, $100^{\circ}5$; no reason to account for rise in temperature; was given at 10 P.M. 3 gr. of quinine. Urine drawn, 1 A.M., 7 oz.; 6 A.M., 4 oz., slight trace of albumen; 12, night, 9 oz.; making 20 oz.

February 21 (ninth day), A.M.—Slept not so well; bowels were moved twice in the night; discharge per vaginam is coloured and has a faecal smell. Dr. Dove passed a speculum and syringed freely with 1 in 5,000 solution of corrosive sublimate, found parts smooth, bowel appearing above, no opening to be seen, passed a wool plug 6 inches long which was kept *in situ* for two hours, when it was withdrawn; its upper end was stained with dark-coloured matter and with a faecal smell; parts have lately, owing to excoriation, been dusted with equal parts of iodoform and subnitrate of bismuth. An indiarubber drain is substituted for the glass. Temperature, 4 A.M., 100° ; 8 A.M., $99^{\circ}8$; 12, noon, $100^{\circ}6$.

P.M.—Iodine water 5jss. of the tincture to the pint is now syringed. Temperature, 4 P.M., $100^{\circ}2$; 8 P.M., $102^{\circ}2$; 12 P.M., $99^{\circ}8$. Urine drawn, no record, 6 P.M., 6 oz.; 12, noon, 4 oz.; making 10 oz.

February 22, A.M.—Slept six hours, quiet and comfortable; discharge on wool is a great deal lighter in colour; douched with the iodine water, no iodoform and bismuth powder used, the bismuth may have imparted the dark colour in the discharge. Temperature, 4 A.M., $99^{\circ}6$; 8 A.M. $99^{\circ}4$; noon, $98^{\circ}8$.

P.M.—A sudden rise in temperature at 8 P.M., Mr. Dove was sent for; patient found comfortable, vagina was douched

out ; after an hour the temperature came down. Temperature, 4 P.M., $98^{\circ}8$; 8 P.M., $102^{\circ}8$; 9 P.M., $100^{\circ}6$; 12, night, $100^{\circ}4$. Urine, 6 A.M., 4 oz. ; 12, noon, 6 oz. ; 6 P.M., 4 oz. ; 12 P.M., 4 oz. ; making 18 oz.

February 23, A.M.—A restless night ; had a desire to micturate, water was drawn, after which patient slept ; bowels moved at 8 A.M. ; not so much discharge on the wool ; douched. Temperature, 4 P.M., $99^{\circ}5$; 8 A.M., 99° ; 12, noon, 100° .

P.M.—This was patient's birthday ; had a fish dinner, and some of Earl's pepsin solution was given ; there is not so much discharge on wool ; slept. Temperature rising about 8 P.M. denotes an accumulation of discharge. Temperature, 4 P.M., $101^{\circ}2$; douched ; 4.35 P.M., $101^{\circ}6$; 8 P.M., $101^{\circ}2$; 12, night, $99^{\circ}8$. Urine, total of 20 oz. from 8 A.M. to 10 P.M.

February 24, A.M.—A good night, discharge not so much. Temperature, 2 A.M., $99^{\circ}4$; 4 A.M., 99° ; 6 A.M., $98^{\circ}8$; 8 A.M., $98^{\circ}4$; 10 A.M., $100^{\circ}5$; 12, noon, 100° .

P.M.—Temperature, 2 P.M., $100^{\circ}6$; 4 P.M., 100° ; 6 P.M., $101^{\circ}2$; 8 P.M., $100^{\circ}6$; 10 P.M., $100^{\circ}8$; 12, night, $100^{\circ}2$.

February 25, A.M.—A good night ; bowels moved at 9 A.M. Discharge more copious, purulent, and thick, but lighter ; excoriation of walls almost healed ; urine neutral, slight albumen. Temperature, 2 A.M., $99^{\circ}8$; 4 A.M., $99^{\circ}5$; 6 A.M., 99° ; 8 A.M., $100^{\circ}2$; 10 A.M., $99^{\circ}6$; 12, noon, 99° .

P.M.—Had a fish dinner. Mr. Jessett examined ; parts are soft and smooth, the cul de sac cicatrising ; to the right a hole about size of the finger, where the drain has lodged, is felt. Urine, 11 oz. Temperature, 2 P.M., $99^{\circ}6$; 4 P.M., 100° ; 8 P.M., $100^{\circ}4$; 10 P.M., $99^{\circ}2$; 12 P.M., $98^{\circ}8$.

February 26, A.M.—Slept well some six hours ; discharge increasing in quantity, of a light grey colour. Temperature below normal.

P.M.—Had a fish dinner ; may now omit the essence of beef.

February 27, A.M.—Eight hours' sleep ; temperature below normal ; chicken for dinner.

February 28.—Slept well ; discharge much about the same ;

the sinus in the right of the vaginal fornix is less. Temperature remains normal, passed urine voluntarily; allowed up.

March 8 (twenty-fourth day).—Patient has been up every day since last report, and able to walk round the ward. Temperature has ranged between 98° and 99°.

On examination this day the vagina is found soft, roomy, and with no discharge; no pain complained of in any direction; the vaginal fornix is perfect, slants upwards and backwards, measuring from the vulva anteriorly about two inches, posteriorly three inches; bowels regular, little vesical irritation, otherwise quite well.

The specimen I beg to hand round.

REMARKS.

Blundell, in the year 1828, was the first in this country to propose and carry out successfully total extirpation of the diseased uterus by the vagina; his patient lived one year; the subject has been a moot point amongst gynaecologists ever since. Dr. West propounded, 'The unanimous voice of the profession has pronounced it to be over-bold, and has rejected it from among the legitimate operations of surgery,' and Mr. Knowsley Thornton more recently says, 'The immediate results must be totally different from those at present obtained, and the after results also, before the operation could be admitted to a place among the legitimate operations of surgery.' Dr. A. Reeves Jackson, of Chicago, in a paper read before the American Gynaecological Society held in Philadelphia, endeavoured to show that complete removal of the cancerous uterus should be discarded from practice, because it is a highly dangerous procedure, and holds forth no reasonable hope for permanent relief.

To the German surgeons¹ belongs whatever credit is due to its modern revival; their results were known to be much

¹ Säger of Leipsic, Schatz of Rostock, Demons of Bordeaux, Schroeder of Berlin, *Archiv für Gynäkologie*, vol. xxi. 1883; the *Archives Générales de Médecine* for August, 1883, and *British Med. Journ.*, Sept. 15, 1883.

ahead of those obtained in this country, where they had been bad ; their mortality may be put down as from 28 to 32 per cent.

Dr. Schroeder, of Berlin, whose death we have to deplore, up to 1884 lost eight out of twenty-seven patients in whom he performed vaginal hysterectomy, and admits that in his practice it is not yet to be called satisfactory, especially as far as the question of recurrence is concerned.

Professor Olshausen up to 1883 performed, or attempted to perform, vaginal hysterectomy twenty-eight times ; in twenty-five the operation was completed ; seven of his patients died—a mortality of 28 per cent.—two on the day of operation ; three of septicæmia on the second and third days ; one of carbolic poisoning on the second day ; one of iodoform poisoning on the sixth day ; one suddenly of embolism of the pulmonary artery on the twenty-sixth day. Of the seventeen remaining cases, in two no return took place for one year ; in two, two years had elapsed without a return, in four or five a recurrence had taken place. In one case he had removed the uterus in a pregnant woman ; she lived eighteen months.

Martin, in a letter dated April 12, 1884, gave an account of sixty cases in his practice, of which thirteen died—a mortality of 21·7 per cent.

Haidlen collected in the year 1881 52 cases, of which 19 died, being a mortality of 36·6 per cent. Czerny collected in the year 1882 81 cases, of which 26 died, being a mortality of 32·1 per cent. Billroth, Brunnur, Hahn, and others have helped to swell the list. Sänger, of Leipsic, collected 133 cases, with 38 deaths, a mortality of 28·5 per cent. William A. Duncan collected from all sources up to the date of his paper, read before the Obstetrical Society, January 14, 1885, 276 cases, with 79 deaths, a mortality of 28·6 per cent. Let us contrast this with abdominal hysterectomy.

Hegar and Kaltenbach collected 93 cases of abdominal hysterectomy—63 died, a mortality of 67·7 per cent. ; and William A. Duncan collected 137 cases of abdominal hysterectomy, of which 99 died—a mortality of 72 per cent.

Abdominal hysterectomy, or Freund's operation, is, therefore, a very fatal procedure.

Mr. Thornton, in his observations ('Brit. Med. Journ.' Oct. 13, 1883, p. 713) on his Class II. (intramural fibromyomata), says: 'Operations for the removal of such growths by abdominal section are serious and dangerous, the operation nearly always involves opening of the uterine cavity, and we are at once exposed to risks of septic conditions. The result is seen in an immensely increased mortality, a mortality still so great that we must pause here and carefully consider what are the conditions which justify us as surgeons in performing these formidable hysterectomies and partial hysterectomies. There can be no doubt that, since it has been generally recognised that operations in which the uterine cavity is opened should be concluded by bringing all the gut surfaces outside the peritoneum, the mortality has sensibly diminished. . . . Those operations involving the opening of the uterine cavity should not, in my opinion, be undertaken unless the life of the patient is actually in danger from hæmorrhage, rapid growth of tumour, or interference with the function of the bowels or other vital organ. . . . I shall,' he continues, 'not again in any case attempt a partial hysterectomy, as I am convinced that it is both safer and easier to remove the whole organ and deal with the cervix, instead of the uterine wall.'

Sir Spencer Wells agreed generally in these opinions expressed by Mr. Thornton.

We are now seeing established in legitimate surgery the operation of extirpation of the uterus for uterine fibroids, no matter what Mr. Thornton's views on the subject are, and it is to be hoped that we may regard the vaginal extirpation of the cancerous uterus as an eminently rational one in an affection so surely fatal when left to itself as carcinoma, claiming for it no more nor less than what is to be expected from excision of the tongue, the rectum, the breast, the thyroid, or the testis.

We certainly may hope that this operation will follow the lead of the other gynæcological operations, showing a better

prognosis as soon as the technical methods become more perfect.

Like ovariectomy, vaginal extirpation of the uterus is progressively improving in its death-rate; vaginal hysterectomy should, therefore, be persevered in with the hope that it will eventually become a far more successful measure than it has proved to be up to the present date.

The question whether it is possible to operate radically is that which may well be asked; this may, indeed, be difficult to answer, and it would be an illusion to suppose it possible to decide it with the utmost certainty: prognosis will be confirmed, but not with absolute certainty, by the microscopic examination: 'time' is the only element which can prove the completeness or incompleteness of the removal of the whole of the malignant structure.

It is a question whether it is advisable to undertake extirpation if there be superficial primary cancer of the vagina, for where extensive parts of the vagina are attacked, the deeper tissue will always be found diseased, and the operation will, most probably, not be radical.

Cancer of the cervical mucous membrane and of the body of the uterus always necessitates total extirpation of the organ.

Of the final results of surgical operations our information is scanty and requires a more rigid following up of each case. Freedom from recurrence, on an average, may be placed at fourteen months, which if extended to two years, a cure may be taken credit for. The prognosis will, no doubt, improve by-and-by, especially if the operation be performed early and radically. Besides, even if the recurrence takes place, as Dr. John Williams now willingly acknowledges, the patient suffers little toward the end of her life compared with the dreadful sufferings produced by ulceration, for the disease generally does not recur on the cicatrix in the vaginal fornix. It spreads upwards on to the pelvic cellular tissue and saves the patient from the dreadful symptoms of cancer, from hæmorrhage and ulceration.

Sänger holds the views that partial operation on the cervix should be reserved for those cases of malignant papilloma in which the growth projects into the vagina ; that supra-vaginal amputation of the body of the organ after laparotomy, or Freund's operation, should be limited to those cases in which the diseased organ cannot be removed through the vagina, and that vaginal hysterectomy should be the rule in all other examples of carcinoma.

In papilloma the superficial area of the vaginal mucous membrane is first implicated, then the epithelial glandular cell ; infiltration towards the rectum and bladder with extension of the papillomatous growth along the cervical mucous membrane towards the uterus and uterine cavity. Papilloma, or the so-called cauliflower excrescence, or cancrioid, is the form of disease the early removal of which results in complete cure, but when left to follow its own course the result is similar to carcinoma. The former begins on the surface, while the latter has already made extensive progress in the deeper tissues before it reaches the surface and ulcerates. By the time it has done so neighbouring parts have been infected, and extirpation is of no avail.

Herein lies the vital importance and necessity of seeing and operating upon cases in their initial stages if women are to be relieved from misery and suffering.

The frequency of the disease commencing in either lips of the os and of the cervix makes the question of treatment one of ever-persistent importance ; the disease is manifestly localised, and not general, in many cases, and a hope of cure is, therefore, not to be absolutely denied.

Practice seems to have separated itself into two widely divergent lines : on the one hand to treat the disease by extirpation of the part or of the whole organ ; and, on the other hand, to remove the disease only in those cases in which a protuberant mass presents itself, namely, the partial operation on the cervix with the application of Paquelin's cautery or some escharotic.

This latter practice implies abandonment of some women

whom a more hopeful view might have helped to cure, and very many of whom might have been relieved, not reckoning, of course, the immediate risks of the operation, which, before being undertaken, must be explained fully to the patient and her friends as a safeguard for the operator.

Dr. BEDFORD FENWICK said that at that late hour he would only ask one question concerning Dr. Purcell's most interesting paper. What was the cause of death in the first case? He need hardly point out how important it was to know this with reference to the question as to the recurrence of malignant disease primarily or secondarily. Mr. Reeves had expressed some doubt as to the possibility of determining the presence of disease in the broad ligament or the pelvic glands. He quite agreed with Mr. Reeves that an examination merely per vaginam might not satisfactorily clear up the point. But he would recommend that in cases such as those under discussion, where it was absolutely necessary for the operator's success and the patient's ultimate welfare that the operation should not be undertaken if the disease had implicated the neighbouring tissues, that their condition should be previously investigated by examination by the hand in the rectum. The method was very little used in England, but it was frequently used abroad, and with much advantage. He had used it himself, and could therefore appreciate both the difficulties and the usefulness of the procedure. It required great care, gentleness, and patience to introduce the hand through the anus, and a clumsy or impatient or careless operator might of course do great harm, but done as a careful surgeon would do it, as a *dernier ressort* for accurate diagnosis, it had been frequently done, and with perfect safety, and it gave a complete knowledge of the condition not only of the broad ligaments and the uterine fundus but of the pelvic glands and cellular tissue.

Dr. GRIGG stated that, when in Berlin in 1879, he heard the late Professor Shroeder lay it down as an axiom that the local mischief alone was not an infallible guide to an operation for extirpation of the uterus; that no operation should

be undertaken without a thorough examination of the broad ligaments and lumbar glands under chloroform (the 'tuft narcose').

Dr. SPANTON observed that, in discussing the question of hysterectomy, it would be well not to lose sight of the fact that certain cases may arise in which the pedicle might be ligatured with advantage rather than clamped: that each case should be dealt with on its merits and not according to any absolute rule. He considered that Dr. Purcell had been singularly fortunate in his experience of hysterectomy for cancer, but the high rate of mortality recorded by others ought to make us cautious in undertaking such an operation for malignant disease, the actual extent of which is often most difficult to determine. It would be a valuable guide if an authoritative expression of opinion were given by this Society as to how far this operation is justifiable or wise for cases in which the disease is limited to a mobile uterus.

Dr. EDIS thought that, unless the diagnosis was made at a very early stage of the disease, before the adjacent tissues had become affected, the probability of an early recurrence of the disease was very great. It had been shown, by a large series of operations, that supra-vaginal amputation was far less dangerous to the patient than total extirpation of the whole uterus, and the results equally favourable as regards recurrence. Dr. Edis had tried nearly every method of operation. The great difficulty met with was that the diagnosis was not arrived at sufficiently early. If the least suspicion existed of any case being malignant in its nature, in place of waiting to see whether the disease extended, steps should at once be taken to confirm or negative the suspicion, and treatment adopted accordingly.

Dr. HEYWOOD SMITH pointed out the extreme difficulty of recognising cancerous deposit in the broad ligaments before the operation was commenced. This condition rendered the operation hazardous, as the cancerous deposit might extend laterally to near the pelvic wall, and it would be almost impossible to restrain the hæmorrhage. In a case he

had operated upon it conduced to a fatal result, as the ligature failed to constrict the broad ligament sufficiently to cut off the blood supply.

Dr. MANSELL MOULLIN pointed out that, if it was really the case, as Dr. Purcell said, that when the disease recurred its tendency was to spread upwards on the cellular tissue of the pelvis and not downwards to the vagina, thus sparing the patient much of the terrible suffering inseparable from cancer of the cervix and vagina, great benefit was undoubtedly gained by the operation. The sufferings entailed by the disease were so dreadful, and its nature so utterly hopeless, that a proceeding which offered such considerable relief was worthy of every consideration. He thought, however, that the success which had attended Dr. Purcell's efforts had made him oversanguine. The third case, in which the vagina was greatly implicated, and a large part of which had been removed in the operation, was in his opinion far too advanced for surgical interference, and he looked for a recurrence in the parts at no distant date. It would be a great advantage to collect in a tabular form the subsequent histories of all the successful cases, to settle this point more definitely and to determine what actual benefit may be expected from the operation, granting that in skilful hands the primary danger may be reduced to something inconsiderable.

Dr. PURCELL said: Mr. President and Gentlemen, I thank you for the kind way you have received my paper, and am pleased at the discussion which it has given rise to. The operation of vaginal hysterectomy has advanced in estimation, for to-night it has had no adverse criticism, an advance since the last occasion on which I brought the subject before you. The discussion to-night has raised the following points—that of diagnosis and consequent prognosis, whether the disease has spread to neighbouring parts and the means effected to discover same, and as to some technical points in the operation.

In reply to Mr. Reeves and Dr. Heywood Smith, the broad ligaments in each of the cases were normal and no

disease was found in them; and as to the treatment of hæmorrhage from the uterine vessels in the broad ligament, none gave trouble, as I practised after tying the ligature, the placing close up to it on the uterine side two pressure forceps so as to clamp the vessels; having divided and freed the broad ligament from side of uterus, it receded together with forceps upwards; if the parts are or should be rotten these clamp forceps may remain on for thirty-six hours, until no danger of hæmorrhage is apprehended. I removed them the last thing.

In reply to Dr. Fenwick, whether I had examined parts by inserting the hand into the rectum. I did not, for my hand would certainly do harm, as it is rather large. The principle is sound if feasible; and in reply to Dr. Grigg, I did not examine under profound anæsthesia, such as he recommends and as done by the Germans. Every aid should certainly be adopted to ensure a proper diagnosis and knowledge of infection beyond. In reply to the speaker who asks how I avoid inclusion of the ureters: This certainly is a most material and critical point. When I get my finger above and around the broad ligament, and having drawn it down into view, I make a most minute investigation and search in the structuré, namely, the broad ligament, for what may be there; the presence or absence of the ureter is then decided on; its presence could not escape observation, the structures are easily spread out on the finger; satisfied of the ureter not being present the ligature is tied.

Dr. Fenwick asks how my first case died? This I cannot reply to; she lived ten months and a half after operation, but my inquiries have not elicited whether she died of recurrence or not. It is more than probable she had recurrence; but if I save the patient even six months of misery I claim the operation as justifiable. I congratulate Dr. Edis on having a case, as I understand, of vaginal hysterectomy alive two years after operation.

The Society then adjourned.

*SUMMARY OF GYNÆCOLOGY, INCLUDING
OBSTETRICS.*

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 12, 1887.

Midwifery among the Burmese.—Dr. T. F. Pedley, of Rangoon, read a paper which described the occupation, dress, and physique of Burmese women. The knowledge of the native medical men is handed down by tradition, and takes origin from fable, horology, astrology, &c., and dieting is followed according to a certain letter, date, name, good or evil spirit. The midwives are of the poorest and lowest class, their chief qualification being age and being the mothers of large families. The more decrepit the more they are respected. All new methods are resisted. Nature is kind, as a rule, to the mother, and carries her safely through. In Lower Burmah there is little real poverty, and the women lay by for the event from five to fifty rupees. A large store of firewood is laid in ; if she cannot buy it, she collects it before her delivery. A room is set apart, where the mother remains till convalescent. Regardless of all sanitary laws, every effort is made to keep out air, and especially the smell of cooking, which is supposed to be particularly injurious. A fire is made of wood, no chimney being provided, and the smoke renders the air stifling. The patient, when in labour, is surrounded by female friends, and a crowd of men and women squat behind the curtain which divides the apartment, and smoke or chew betel. When the pains become severe, the patient squats on the floor supported by a woman sitting behind her. The midwife assists in front by pushing with

her hands on the abdomen, using more and more violence as the pains increase. A silk scarf or cloth is tied tightly round the body above the umbilicus, which is drawn tighter as the case proceeds, not with any idea of restraining hæmorrhage, or supporting the uterus, but to prevent its rising into the chest. As the head progresses the woman is laid on her back on the floor with her knees drawn up. Her attendants press on the abdomen with all their might. When the head of the child presses on the perineum, the midwife leaves the pushing to others, and in all first cases tears the perineum either with her thumb-nail, which is grown sharp and long for the purpose, or with her great toe-nail. In other cases, the perineum is retracted, and as soon as the head is born the child is rapidly extracted. If the placenta does not follow quickly, the cord is dragged on, and this failing, it is removed by the hand, or torn away piece by piece. The mother is washed, and the whole body rubbed with turmeric, and saffron is plastered over the vulva. The fire is kept up, and hot bricks wrapped in rags, or bags of hot sand, are placed on the abdomen, and twice a day the patient has to squat over smouldering embers upon which turmeric has been thrown, or over steam arising from hot bricks. The skin is often blistered by the application of heat, but heat is supposed to permeate the parts and heal them. The food is hot water, hot broth, with fish and rice. The poor get up on the fourth or fifth day, but the better classes scarcely move for a fortnight, except for the daily steaming process and the calls of nature. On the seventh day a hot 'pack' is used for some hours, which produces free perspiration. When the blankets are removed, the patient is bathed freely in cold water. The constant sweating during the first week brings out a miliary rash, which is considered a good sign. Shampooing or massage is used for hours together, often to so severe a degree over the abdomen that displacements of the uterus are produced. Though Burmese women are clean in health, washing is avoided during sickness, and their habits are then dirty. When delivery is not rapid, various barbarous methods are

followed, such as standing on the patient's abdomen, and pressing or kneading it with the feet, or a bamboo or plank is placed across the abdomen, while the attendants endeavour to expel the child by using all their force at the two ends. This method is very usually fatal to mother and child, and often causes rupture of the liver or bladder. Tetanus often follows lacerations of the perineum, cervix, or rectum; one case of recovery under the use of chloral was recorded. In cross-births the part presented is torn or cut off, and the child removed piece by piece, the head being extracted by means of a large fish-hook. In all cases the object is to remove the child as quickly as possible, and regardless of risk to the mother, owing to the superstition that if a woman dies undelivered the spirit of the mother and child haunt and bring misfortune to the relatives ever after. Burmese women really need little assistance if nature is left to herself. Their pelves are roomy and expulsive efforts strong. The native system leaves little for perverted ingenuity to devise towards preventing recovery, and is about the most severe and fatal in the world. The only remedy is a supply of properly trained Burmese midwives, which the Burmah branch of the 'Countess of Dufferin's Fund' has determined to undertake. The paper was illustrated with coloured drawings, by native artists, of the most characteristic points mentioned.

Dr. BOXALL said there were many points of similarity between the Burmese and Chinese, as regards sophistry and superstition in the practice of all the branches of medicine; and the description of the practice of Dr. Hua during the Han dynasty, about a thousand years ago, taken from the 'Story of the Three States,' takes abdominal surgery back several hundreds of years.

On Stricture of the Female Urethra.—Dr. HERMAN read a paper on this subject. He had measured the female urethra in 55 cases in which no urinary trouble was complained of. He found that in the majority a No. 17 catheter would pass, and, in all but two, a No. 14. He related six cases of stricture of the female urethra under his own care.

He had collected and arranged in tabular form 23 others, which were all that he had been able to find reported. He drew a parallel between the two sexes as to the etiology of urethral stricture, and showed that while it was much commoner in males, its causes were much the same in the two sexes. In both it might be the result of injury (these cases being proportionately commoner in women on account of child-bearing), or of the cicatrisation of chancres. In the woman it was sometimes due to so-called lupus of the vulva. In both sexes the chief cause in young and middle-aged subjects was gonorrhœa. In the aged of the male sex, enlargement of the prostate was the common form of stricture. In old women there was found stricture due to general fibrous thickening and induration of the urethra occurring without any history of gonorrhœa or other discoverable local cause. The author suggested that as in women the homologue of the prostate gland was the urethro-vaginal cellular tissue, these cases were possibly analogous to enlarged prostate in the male. As to treatment, he found that rapid dilatation was so simple and successful, that it was preferable to any other method.

ANNUAL MEETING, WEDNESDAY, FEBRUARY 2, 1887.

A Case of Unilateral Galactorrhœa.—Dr. Gibbons described this case. A lady, aged 23, who had ceased nursing for six weeks, complained of constant running of milk from the left breast. After her first confinement she had nursed for five months with both breasts, after which she had to give up on account of weakness; and an abscess formed in each breast and discharged for eleven months. After this, her second confinement, she at first nursed with both breasts; but the milk disappeared from the right one, and she continued with the left one only for four months, and then discontinued, as it was thought that her milk disagreed with the child. Menstruation had not reappeared; there was no reason to suspect pregnancy; and there was no uterine disease. Although she was anæmic, the milk was of good

character, and the amount that flowed was twenty ounces in twenty-four hours. The author then enumerated the various remedies which he had used, without result, to arrest the secretion of milk; these included arsenic, iron, strychnine, iodide of potassium, belladonna, bromide of potassium, quinine in large doses, opium, compression of the nipple, galvanism, faradism, rest, and a dry diet. Menstruation appeared eleven months after the birth of the child, being preceded by a gradual diminution of the flow of milk, which continued over the second period, then ceased altogether, and the patient's condition became one of natural health. The author drew attention to the following facts: (1) that the galactorrhœa was unilateral; (2) that the milk was of normal quality and quantity; (3) that there was no stimulus of nursing or of the genital organs; (4) while resisting all treatment, it ceased spontaneously on the occurrence of menstruation. Authors were quoted as to the value of certain drugs in galactorrhœa, and cases were given illustrative of treatment by galvanism and faradism. Reference was made to the experiments of Rochrig to determine whether the nervous or vascular element had the greater influence over the secretion of milk, and resulting in favour of blood pressure as the chief factor. Sinéty was also quoted; and, in conclusion, the author remarked that he had failed to find any case similar to the one brought forward.—It was proposed and seconded that the discussion of this paper should be postponed till the next meeting of the Society.

Presidential Address.—Dr. Potter first congratulated the Society on its prosperous condition. The number of Fellows at the close of last year was 736, and although 40 Fellows had been lost to the Society by death or erasure, at the present time they numbered 761, which was the largest number since its foundation. Financially, the same prosperity could be reported, and the Library had had an increase of 156 volumes. The Midwifery Board had become so popular that in the past year 102 women had come up for examination, 80 of whom were found qualified to receive the Society's

diploma, and 390 midwives were now on the register. If the Society had no other work to show, it might well be proud of having taken in hand this duty, so long neglected by the State. A great many interesting specimens had been shown, and twenty important papers had been read at the meetings. These were reviewed by the President, who then reminded the Fellows that, if there were no striking novelties in treatment to record, the function of the Society was to maintain a judicial attitude, and, while assisting real progress, to check or arrest it when it tended to danger. One of the highest points that we should aim at was the prevention of disease, and, while the improved records of our lying-in hospitals showed advance in obstetrics, this had not received the same attention in diseases of women. The more frequent induction of premature labour and timely use of the forceps had greatly reduced mortality ; but in our present state of knowledge we were not prepared to accept abdominal section as an alternative to craniotomy in all cases, still holding to the English axiom, 'The safety of the mother before that of the child.' In chloroform and frequent use of the forceps we had means of preventing laceration and sloughing of soft parts, thus rendering far less common the miserable after-effects of lingering labour. The prevention of diseases of women had not received the same attention—the effects of cold, damp, imprudence, and want of care at the menstrual periods ; the effects of excessive child-bearing, abortions, the prevention of impregnation, and many other causes of disease, deserved and required careful consideration, and he who could prevent the occurrence of diseases of women would be a greater benefactor to his race than the operator, however skilled he might be, who treated them. The tendency now seemed to grow more and more surgical, until to some minds abdominal section and the removal of internal organs seemed the panacea for all the evils that woman was heir to. To the indiscriminate use of these procedures we could not give our adhesion, and especially did we object to the heroic surgical treatment of hysteria, that chameleon disease which still claimed so much

sympathy and treatment at our hands. Even statistics on these matters, however carefully tabulated, had to be received with caution; the distinction between cases that had recovered or become well and those that could be truly said to have only just escaped death, or had lived, too frequently with their suffering unrelieved, had not always been clearly shown. In estimating these matters, much must depend on character; a reputation for truth and logical precision was of more permanent value here than the statement of brilliant results that would not bear the test of investigation. If he had spoken strongly on this matter, it was owing to the fear that some might be apt to forget the sacredness of human life in their zeal for operating, and this must be his excuse.--The President next gave a short biographical record of the Fellows of the Society who had died during the past year. He then, before quitting the presidential chair, expressed his sense of the consideration and courtesy which he had always received during his term of office, and congratulated the Society on the selection of his successor.

WEDNESDAY, MARCH 2, 1887.

The President, Dr. John Williams, delivered his inaugural address, in which he discussed the progress of obstetric medicine and science. He noted that in midwifery, even more than in the treatment of diseases of women, the progress of knowledge had revealed new methods of saving life. Our knowledge of the use and application of the forceps, of the mechanism of labour in deformed pelves and of pelvic measurement, and of the means at hand for abolishing craniotomy, had saved many lives. The most important innovation, however, was the introduction of antiseptics into the practice of midwifery. In that branch of obstetric medicine which dealt with the diseases of women, the most striking fact was the marked change which had come over it during the past thirty years, during which period it had acquired a surgical character. Passing over the triumphs of abdominal

surgery, it must be admitted that all pelvic and uterine surgery of the past could not be considered as triumphs, but rather as disasters. There was hardly one among the diseases of women for which some surgical proceeding had not been suggested. How was this to be explained? Was it to be ascribed to the failure of medical science, or to the slowness with which medical treatment accomplished its objects? Or was it due to impatience and hurry on the part of the practitioner? Or did it arise from a plethora of surgical genius in one department? Or might not other causes play an important part in bringing about the present phase of the practice of the diseases of women? As with the diseases of other parts of the body, many of those which affected the female pelvic organs were not amenable to treatment of a medical kind; and in some of these the art of the surgeon intervened rightly and beneficently. There were others, again, in which the art of the surgeon had been practised in vain, or with evil consequences, which had been subdued by the skill of the physician. There were others, again, which were cured neither by the skill of the physician nor by the dexterity of the surgeon, and this fact we should not have the shortness of memory to forget nor the recklessness to overlook in practice. Hitherto, surgery had proved of the greatest use in the removal of excrescences and the repair of injuries. When it had ventured beyond this it had been productive of more evil than good. We were also struck by the number of operations which had been devised, suggested, and practised by the extraordinary divergence of opinion held by authorities with regard to their value, and by the number of them which had been practised for a time, and then had been entirely, or almost entirely, discarded. This was a state of things which existed in no other department of medicine, nor in the surgery of any other part of the body. Had the many operations which had been proposed and practised been based upon carefully ascertained data—data acquired by honest scientific labour? Or had they been based upon hypotheses, the offspring of a too active imagination? Or had those who

had been opposed to the present surgical wave failed to appreciate ascertained scientific truths? The fact that many operations which had been proposed and practised, especially in the treatment of vaginismus and dysmenorrhœa, had proved useless or injurious, and had been discarded, indicated that such operations were proposed on insufficient and unreliable grounds. The mischief arising from the too ready acceptance of surmises could not be exaggerated. The President gave a further illustration of it from the other branch of obstetric medicine. About a quarter of a century ago, Dr. Braxton Hicks enunciated the scientific method of treating placenta prævia. For nearly five-and-twenty years this was overlaid by a mass of teaching based upon false hypotheses and exceptional occurrences, and had only recently been rescued and reintroduced to us through a German medium. Hypotheses and their ready acceptance had been the bane of obstetric science during recent years. We should prove all things, and especially hypotheses burdened with operations. The wonder-inspiring character of many of the operations practised for pelvic diseases also accounted for the present surgical aspect of practice in the diseases of women. This was the side of them which appealed to the public, and, unfortunately also, to a large number of the profession. Like the most dangerous feats of the acrobat, and of the performer on the tight-rope, they appealed irresistibly to a quality of mind which was far from uncommon. How often did we hear the greatest admiration expressed for a medical man, not because he was learned and skilful, but because it was 'kill or cure with him.' This quality came out in a very marked manner in the love of quackery shown by those who could not profess ignorance as an excuse for their folly. The President then spoke of contemporary medical literature at home and abroad. To America, he remarked, we owed much that was excellent in midwifery and in the treatment of disease. In that great country much of the energy of the profession was, however, devoted to the impossible, to setting the coping before the foundations had been laid. At the same

time, many of our brethren there were devoting themselves to clinical and pathological work. But there was one questionable phase of the work done in their obstetrical societies, and that was the practice of publishing imperfect reports of operations before the results, immediate and remote, of the operations were known. No good could result from publishing operations on a Thursday which were performed on the previous Monday, and no practice was more likely to be productive of unalloyed mischief. It was a practice which the President hoped would never be introduced into our Societies. If it were intended to benefit science, the intention must fail; and if it were for purposes of advertisement, no words could be found bitter enough to express our contempt for it. Were this Society a mere advertising medium, the President would neither hold office in it nor be a member of it for an hour. It was, however, an excellent advertising medium, and it was right that it should be such. We did not light a candle and place it under a bushel, nor did we bring new facts and new discoveries into this room to hide them, but for the enlightenment of one another and of the profession. The President then expressed satisfaction at the number of good scientific papers which the Society had in hand. Through science the time might come when some President of the Obstetrical Society would be able to announce to his audience that obstetricians of the present day possessed the means of preventing the growth of ovarian tumours, or of fibroids, or of cancer. In conclusion, he hoped that obstetricians would rely, not on doubtful surgery, based on guesses at truth, but rather on careful observations by the bedside and in the laboratory. To clinical research the country medical man could render brilliant services.

At the conclusion a warm vote of thanks was proposed by Dr. Graily Hewitt and seconded by Dr. Braxton Hicks, which was carried by acclamation.

ACADEMY OF MEDICINE IN IRELAND :

OBSTETRICAL SECTION.

FRIDAY, JANUARY 7, 1887.

Ovarian Tumour.—Dr. Macan exhibited part of an ovarian tumour which had been developed between the layers of the left broad ligament. On opening the abdomen, the tumour came into view. It was punctured, and a large quantity of fluid escaped, and then the tumour partly collapsed ; but he found it impossible to pull it out. He found that it extended along the uterus to the iliac region, and filled the whole of the broad ligament. It seemed to be unilocular, and therefore he only removed the part of it which he now showed, leaving about a third of the tumour behind. He removed the peritoneal covering, and tried to enucleate ; but adhesions rendered that impossible. The woman had hardly any rise of temperature until the second or third week after the operation, when she had slight pyrexia. She was now apparently quite well. Dr. Macan also showed specimens of ovaries removed for menorrhagia due to fibrous tumours ; and a specimen of a retro-peritoneal tumour which he had removed by laparotomy.

Treatment of Vaginismus.—Dr. More Madden read a paper on the treatment of vaginismus, which, he said, was generally caused by neuromata in the area of distribution of the superficial perineal branch of the pudic nerve. Many cases could be cured by forcible dilatation of the vaginal canal and stretching the pudic nerve, combined with general sedative treatment. In some instances, Sims' or Emmet's operations might be necessary. In conclusion, Dr. Madden pointed out that, even in the worst cases, the disease did not necessarily prevent impregnation.—Dr. Frazer said he could confirm the remark as to the possibility of pregnancy occurring without vaginal intercourse.—Dr. S. Mason said a little rest, and painting the orifice with nitrate of silver, were sometimes very effectual. It was not always necessary to

remove the hymen ; but, when that was done, it was always well to make a lateral incision in order to expand the orifice. —Dr. Macan said he had met with only a few cases of vaginismus. There were two classes of cases : namely, one in which there was some local cause for the trouble, and the other in which the most careful examination could detect no local cause. In the latter class the cause was nervous, and whether excision of the hymen would cure it was doubtful.—Dr. More Madden, in reply, said the main features of his treatment in such cases were rest, dilatation, and nerve-stretching.

Case of Porro's Operation for Rupture of the Uterus.

Dr. S. Mason read a paper on a case of rupture of the uterus, of which the following is an abstract. On November 5, 1886, a patient was admitted to the labour-ward, Coombe Hospital, who had been in labour with her third child for more than three days. Her two previous labours had been difficult and tedious, the child in each case being still-born, though labour was completed by the natural efforts. A clear history could be obtained of the uterus having ruptured twenty-six hours before the patient's admission to hospital. On opening the abdomen, the child was found lying directly behind the abdominal wall, and was easily extracted ; the placenta was in the lumbar region, surrounded by blood and meconium ; and the uterus was situated posteriorly, small, and well contracted, with a rent in its lower part extending completely through the cervix. The uterus was then removed, the pedicle formed by the cervix being secured by a Keith's clamp and a transfixion-needle, and the abdomen was closed by silk sutures. The patient rallied well after the operation, and seemed to be progressing favourably for about ten hours, when she suddenly commenced to vomit, and died. Post-mortem : signs of recent and extensive peritonitis were found in the abdominal cavity. The portion of uterus enclosed in the clamp was torn through to the lower extremity of the anterior lip of the cervix. The bladder was uninjured. The pelvis was that described as the oblique pelvis of Naegelé,

complicated by projection downwards and forwards of the last lumbar vertebra.—Dr. Smyly said the great difficulty with which Dr. Mason had had to contend was the poisoning either of the uterus or the peritoneum. There had been a considerable lapse of time since the accident, and the child had died; and the escape of gas from the abdomen proved that the uterus and peritoneum had been poisoned.—Dr. Macan observed that Porro's operation in itself seemed a very simple one. The indication for it seemed to be that such infection existed that it would be a good thing that the woman should be made incapable of bearing children. On the other hand, if the peritoneum was not infected, Säger's operation was preferable, on the ground that it left the woman capable of bearing children. The comparative mortality after the two operations was now almost the same.—Dr. Mason, in reply, said the woman's pelvis was extremely small. If any great time had elapsed after delivery, Porro's operation was better than Säger's; but where the rupture was very recent, the latter gave a better chance of recovery.

FRIDAY, FEBRUARY 4, 1887.

Fibroid Tumour.—Dr. M'Mordie, of Belfast, exhibited a fibroid tumour which had been removed from a single woman, aged 25 years, in consequence of excessive hæmorrhage.

Ovarian Tumour.—Dr. Lane exhibited an ovarian tumour. Dr. Macan assisted him in the operation, and, from taking part in it, they both became affected with boils and abscesses on their hands, while Dr. Macan got them on his arms and chest. A considerable quantity of the fluid got into the patient's peritoneal cavity. She made a good recovery.

Cases of Ovariectomy.—Dr. W. K. M'Mordie described a case of double ovariectomy, in which he used strong silk with the Staffordshire knot for the pedicle of each cyst. For the incision he used silver wire sutures, and between the first and second sutures from the lower angle he left in a Keith's glass drainage-tube, which was removed on the fourth day. Antiseptic dressings were used, and the sutures were removed

on the tenth day. The woman made an excellent recovery and returned home one month after the operation. He also described a case in which he removed both ovaries where confirmed masturbation resulted in insanity. The woman practised the habit regardless of the presence of others, even in the presence of her husband and children. The operation completely cured her of the pernicious habit ; but up to the present her mental condition was not much relieved. In the left ovary was a small cyst about the size of a hazel-nut filled with a thin dark-coloured fluid.—Dr. MacSwiney said it was of great importance to ascertain whether the masturbation was the cause or the consequence of the insanity.—Dr. Thornley Stoker refused to endorse such a treatment for masturbation and the relief of a mental condition without some other treatment having been previously attempted. Another operation for cases of masturbation which had got into disrepute was that of clitoridectomy. He would certainly prefer it to that which involved the destruction of the woman's sex, particularly in a case where the patient was only 33 years of age. About a year and eight months ago a young woman, aged 19, was brought to Swift's Hospital, who was as mad as could be, and who was a victim to the habit. She lost flesh, and had all the symptoms of hopeless insanity. After everything had been tried with her in vain, he removed her clitoris, and she never made any attempt to masturbate afterwards. She was now perfectly sane, and earning her living respectably. He was convinced that castration ought frequently to be done in male lunatics. It corresponded to ovariectomy in the female, and was quite as justifiable.—Dr. More Madden believed that more could be done by acting on the moral nature of the woman, sedative treatment, change of air, and occupation.—Dr. Molony said that if the woman had an insane history, and if the attack were a second one, she would have recovered if she had been left alone.—Dr. Byrne said that, as the whole genital tract was involved in masturbation, there was not much use in removing a small organ like the clitoris.—Mr. Thomson said that an actual relation in the

way of cause and effect between insanity and masturbation had not been made out. The records of the English asylums showed only $1\frac{1}{2}$ per cent. of cases of lunacy traceable to masturbation. That being so, it was a very serious matter to excise healthy ovaries on the supposition that it would cure the habit; and Mr. Lawson Tait alleged that the removal of the ovaries did not destroy the sexual instinct. If so, what was to be gained in cases of masturbation and insanity by removing the ovaries?—Dr. Smyly said the disease resulting from this habit was a nervous one, and Hegar, whose work on the diagnosis of nervous complaints was most exhaustive, had confessed his inability to come to a certain diagnosis as to the cause. In the majority of cases of the kind in question the ovaries were not normal.—Professor Dill approved of Dr. M'Mordie's proceeding.—The Chairman said he considered that in many cases the removal of the ovaries was a most valuable operation. Nevertheless, he thought the number of cases in which the operation was performed elsewhere was greatly in excess of what was absolutely necessary. He did not think that the removal of ovaries had any great influence on sexual desire. His impression was that the masturbation was the result, and not the cause, of insanity, so that the value of the operation in those cases was not established.—Dr. M'Mordie said he could not expect that the somewhat new method he had adopted of treating masturbation with insanity would meet with unanimous approval. He was not an advocate of the wholesale removal of slightly diseased ovaries, and he saw but few cases where he thought it justifiable.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, DECEMBER 22, 1886.

Battledore Placenta.—Dr. Glaister showed a typical specimen of battledore placenta.

Effects of Injury in Twin-Pregnancy.—Dr. Glaister showed a placenta and fœtus illustrating the effects of such

an accident. The mother, when three and a half months' pregnant with twins, had a severe fall, which caused the death of one of them. The foetal remains showed signs of post-mortem inflammatory action, one of the feet being found attached to the body by a lymph deposit in form of a band, as well as other lymph formation. The placenta was divisible into two portions—one, the larger, containing ordinary healthy placental tissue, and the smaller being markedly white. There was one chorion and one amnion.

Maceration of Fœtus.—Dr. Robert Pollok exhibited an example of maceration of a fœtus.

Basilysis versus Craniotomy.—Dr. W. L. Reid exhibited the head of a fœtus which he had extracted after basilysis, and a discussion ensued as to the respective merits of basilysis and cranioclasm, or craniotomy. The balance of opinion was against basilysis.

Private Obstetric Practice.—Dr. J. K. Kelly then read a paper on 'A Review of Thirteen Years' Private Obstetric Practice,' in which he said he had attended, in the years 1873-85, 2,823 confinements, at which 2,868 children were born. The maternal mortality had only been 17, or 1 in 166; 5 of these were due to causes unconnected with parturition, thus reducing the true childbed mortality to 1 in 235·2. Taking the last six years alone, his maternal mortality had only been 1 in 411. In 762 primiparæ the mortality had been 8, or 1 in 95·2; and in 2,061 pluriparæ 9, or 1 in 229; but in his last six years' practice he had attended 284 primiparæ without a death, and 949 pluriparæ with 3 deaths. After eliminating premature twins and triplets, he had 2,669 children born at full term; of these, 57 were still and 14 died shortly after birth, thus giving an infantile mortality of 1 in 37·5. Dr. Kelly also gave details of his practice in various complications accompanying or following delivery.

WEDNESDAY, JANUARY 26, 1887.

Incubator.—The President exhibited a model of the incubator in use at the Maternity Hospital.

Early Fœtal Specimens.—Dr. Murdoch Cameron exhibited a fœtus at the sixth week with membranes ; and also a fœtus at the fourth week with amnion, chorion, and remains of umbilical vesicle.

Private Obstetric Practice.—The discussion on Dr. J. K. Kelly's paper was opened by Mr. J. Stuart Nairne, who thought Dr. Kelly fortunate in having had no cases requiring other means than the use of straight forceps for delivery. He could not believe such an amount of distensibility as that observed to be compatible with a healthy pelvis. The lumbo-sacral joint allowed, not, certainly, a dilatation, but an adjustment of the fœtus to the pelvis.—Dr. Park objected to 'bad nursing' being scheduled as a cause of maternal death, and to Dr. Kelly's wholesale condemnation of ergot.—Dr. Reid thought it was dangerous to apply the straight forceps at the brim.—Dr. Abram Wallace said that attention had before now been drawn to luxation of the lumbo-sacral articulation. He did not think the pelvis capable of such distension as Dr. Kelly contended for.—Dr. Oliphant believed moderate perineal ruptures healed very well without stitching, and Dr. Ritchie mentioned that Mr. Lawson Tait objected to stitching immediately after labour, as being apt to give rise to fistula.—The President said that the last quotation had reference to ruptures of the posterior vaginal wall into the rectum. He did not reckon rupture of the 'fourchette' a rupture of the perineum, as that occurred in nearly every case. When the tear went within two and a quarter inches of the anus, it should be stitched immediately and thoroughly ; *à fortiori*, this should be done when the tear passed through the anus. He thought straight forceps inadequate for use at the pelvic brim, and that the double-curved instrument should always be used. He had observed distensibility of a marked kind in only one case, and in it a binder had to be worn after labour, in order to enable the patient to walk comfortably.

Dr. J. K. Kelly, in replying, adhered generally to the positions contended for in his paper.

Obstetrics and Gynæcology at Berlin and Vienna.—Dr. George Halket then read a paper on the ‘Obstetrical and Gynæcological Cliniques of Berlin and Vienna,’ and exhibited the obstetrical and gynæcological instruments in common use at the latter place.

Cancer of the Uterus.—We find in the ‘Medical Press’ that Prof. Siredey uses a very simple but effective palliative treatment for cancer of the womb, and in many cases in which he applied it the patient’s sufferings were rendered very supportable. His method consists in washing out the vagina by a solution of corrosive sublimate (1 in 3000), and in applying small plugs of cotton, imbibed in a four per cent. solution of chloral and dusted with iodoform, to the wound. It is essential that the wound should be exactly covered with the first plug and left *in situ* for two days, when the dressing is renewed. After a few days of this treatment the ulcer, which hitherto wears a very ugly aspect, becomes clean and resembles an ordinary wound, and the pain is greatly lessened. By this method also hæmorrhage is arrested, and thus the life of the patient is prolonged and her general state is greatly improved.

Treatment of Retained Placenta.—Professor Pajot, in a lecture published in the ‘Gazette des Hôpitaux,’ gives the following conclusions: When the placenta is detached, and you are certain of it, you may make gentle and continuous contraction; watch and wait. If the placenta is not separated do not make traction upon the cord for fear of causing inversion of the uterus, or of producing a severe injury or a formidable hæmorrhage. Above all, beware of giving ergot, and remember these words, *never give ergot when there is anything in the uterus*. What, then, is to be done? Place the woman across the bed, seize the cord, and follow it up, and with the finger endeavour to gently detach the placenta and remove all you can. Then give an antiseptic injection, which should be repeated on the following days. If there is any hæmorrhage after you have taken it away, you may then give a little ergot.

This is the course in labour at full time, but abortion yet remains to be spoken of. There are two conditions which may present themselves—the one common, the other rare. The first is the retention of the detached placenta; the second, the non-detachment of the placenta, which continues to live in the matrix. In the first case the rule is no interference so long as there is no odour, or, that is to say, so long as there is no putrefaction, but immediate intervention by all possible means, without violence, as soon as there is any sign of decomposition. Extract the placenta, in whole or in part, use the spoon forceps and antiseptic injections; for if you do not extract the placenta the woman is dead. In the second case the placenta is living, there is no odour; wait, and prepare in advance for the hæmorrhage which may run to a fatal termination; prepare your tampons and instruct some one how to act in case of sudden hæmorrhage while waiting the coming of the physician. This is what is necessary for you to do, but what you *must not do* is to give ergot when there is anything in the uterus, under the penalty of committing an assassination, of killing the woman. For you kill her as truly as though you had used a pistol. When, on the contrary, the uterus is empty, and there is an hæmorrhage, you can use ergot; it is permissible under those circumstances.

JOURNAL D'ACCOUCHEMENTS.

In this journal we find the following case of Placenta Prævia treated in the Maternity of Liège. The patient was a married woman, aged 36 years, mother of two children. She had advanced to about the eighth month in her third pregnancy when she began to flood. A doctor was called in, and considering the dangerous state the patient was in, her vagina was plugged with tampons and she was removed to the Maternity.

On admission there she was in the following condition:—Pale, anæmic, extremely weak, cold, and almost without pulse. She was somewhat restored to a better condition by

friction, warm stimulating drinks, and hypodermic injections of brandy. The vaginal tampons which had first been placed round the cervix were removed, and fresh ones, dipped in an antiseptic solution, were placed there instead. Before these antiseptic tampons were placed in the vagina the cervix was found to be soft, easily dilatable, the os uteri being five or six centimetres in diameter. Through it protruded a lobe of the placenta and the bag of membranes. The abdomen was enlarged transversely, the foetal head was in the left iliac fossa, the foetal heart-sounds were heard above the umbilicus. When the os had dilated sufficiently, the membranes were ruptured and the position of the foetus was found to be a first shoulder presentation. Podalic version was performed without any difficulty, and the hæmorrhage was stopped. The labour was finally ended by the birth of a dead female child. Five minutes after the delivery of the child the placenta was born with the membranes, the lobe which protruded through the os being easily distinguishable from the rest of the mass. Injections of sublimate solution were frequently used during the lying-in period to guard against any puerperal mischief which might accrue from the passage of the hand into the uterus during the operation of turning. Everything went well, and the patient was subsequently discharged.

Amongst the complications of labour two are of special importance, owing to their gravity and relative importance; these are, placenta prævia and eclamptic convulsions.

In both cases it is advisable to terminate labour as soon as possible, but no interference should be made until the os uteri is sufficiently dilated to allow the child to be born with as little delay and violence as possible.

The use of antiseptic precautions is another point which should be insisted on, as by its means many lives are saved and the risks of the puerperium are greatly diminished.

THE MEDICAL ANALECTIC.

From this journal we gather some interesting subjects. Dr. R. Milne Murray's article on some of the physiological and therapeutic effects of water at different temperatures, with special reference to obstetric and gynæcological practice, is reviewed, as it deserves to be, rather fully. Water is used at 120° F., and is a very powerful agent in controlling hæmorrhage. Inflammation, too, may be checked by the use of this agent, for the calibre of the blood-vessels is narrowed owing to the stimulating effect of the water, and any abnormal blood supply will be cut off. Its efficacy in promoting tonic contraction of non-stripped muscle indicates its use as a promoter of uterine action in two different classes—(1), those in which the uterine contents have not been expelled; (2) those in which the uterine contents have been expelled, but where there is a risk of hæmorrhage owing to inefficient uterine contraction. Cases are recorded in which hot water acted promptly and with effect in each of these two classes.

Dr. Murray claims the following advantages for this agent, which he thinks should be used more frequently, not only by gynæcologists and obstetricians, but also by general surgeons, for the purpose of stopping hæmorrhage:

1. Its action is rapid, though Dr. F. Barker denies this.
2. The length of the tonus produced is sufficient to allow coagulation to take place in the vessels and sinuses.
3. There is not the same vascular reaction after the use of hot water as there is in cold. Nothing is more striking in the use of hot water than the persistence of the tonic rigidity of the uterus which follows its employment.
4. There is absence of exhaustion following its use. Non-stripped muscle will respond to the stimulating effect of hot water for a considerable time.
5. There is less shock to the system.

Every application of cold water to the mucous membranes of the vagina and uterus withdraws an immense amount of

natural heat from the system and means a certain amount of shock, whereas the application of hot water will add to the system much of the essential heat that has been lost in the escape of the blood.

On the Diagnosis of Ascites by means of the Vaginal Touch (R. Tripier).—By the vaginal touch alone we are here told that the smallest quantity of ascitic fluid can be detected. The diagnosis rests on the extreme mobility of the uterus. The uterus yields to the finger because of its abnormal mobility. It can be moved in all directions with equal ease as if it were fixed to the vaginal roof by a hinge. This extreme mobility is attributed to the loss of weight of the organ, and the existence of fluid in the pelvic cavity explains this loss of weight.

On Ulceration following an Abscess of Bartholin's Gland simulating Chancroid (Nivet).—The subject of this was a chambermaid, aged 21. There was a single ulceration on the inner surface and middle region of the left nympha, just within the vulvo-vaginal orifice. Its size equalled the nail of the little finger, oval, depressed, with punched-out, slightly oval edges. Its base was irregular, yellowish and covered with pus. There was a history of swelling followed by sudden purulent discharge from the part; there was no bubo, and she had not submitted to sexual intercourse for one month before the appearance of the primary lesion. The history led to a diagnosis of 'a chancre-like ulceration of the vulva consecutive to an abscess of Bartholin's gland.'

On Iodoform Collodion in Gynæcology (J. Cheron).—The author used a five per cent. solution of iodoform in collodion in a case of perimetritis. The pain, which was acute, disappeared immediately.

The author thinks flexile collodion is more useful than the ordinary collodion.

H. C. Wyman advises the use of the dry chloride of sodium to the cervix in cases of subinvolution where surgical interference has been deemed unnecessary or not admissible.

The formula used is—

R. Chloride of sodium, ℥j.
Powd. slippery elm-bark, ℥iij.
Powd. hyoscyamus leaves, ℥j.

Mix and rub in a hot and dry mortar until thoroughly desiccated.

A teaspoonful of this is applied to the diseased cervix every other day.

Drs. Bridgeman and Miley report two cases of sterility with neuralgia of the uterus and ovaries. In each case pills containing $\frac{1}{8}$ gr. each of ext. belladonna, hyoscyamus, and nuxvomica were ordered. The neuralgia in each case was soon cured and the women bore children. They are convinced that the drugs had something to do with bringing about the pregnancies.

H. A. Slocum has for some time past used vaginal tampons of boracic acid, and thinks they fulfil their office more thoroughly than any other variety. The vaginal tissues after their use are pale and more healthy looking. This paleness is not due to the pressure exercised by the tampons, for simple cotton tampons are frequently tinged with blood on their surface, though carefully placed and not tightly packed.

The discharges are lessened by the use of these tampons, and any offensive foetor is abolished.

JOURNAL DE MÉDECINE DE PARIS.

Note upon Two Cases of Ascites of Inflammatory Origin.

By Dr. DAUVIN.¹

The first case was that of a man who, when first seen, was suffering from an abdominal tumour with some œdema of the extremities. The diagnosis lay between hydatid cyst or cancer of the liver. The absence of fluctuation, the induration of the gland, the emaciation of the patient, the presence of sugar in the urine, were in favour of cancer. Various treatments were adopted, but in vain. Some ascites soon

¹ *Journal de Médecine de Paris*, Jan. 1887.

appeared, and the œdema of the extremities became very marked.

Abdominal paracentesis was performed with the result that about 500 grammes of a viscid yellowish fluid were withdrawn. The fluid, immediately on its escape, coagulated, and the trocar became blocked so that no more fluid could be withdrawn. The patient ultimately died. Dr. Dauvin remarks that this was a case of cancer of the liver, the source and nature of the rapidly coagulating fluid being a peritoneal cyst of inflammatory origin.

The second case happened in a female 79 years of age, who complained of an abdominal tumour, rapid in growth, and causing marked and dangerous asphyxia. The abdomen was enlarged, the enlargement being most marked on the right side. The tumour was hard and irregular, but gave the impression of containing fluid. Dulness extended over all the right side of the abdomen and passed towards the left side. Ascites was present, and fluctuation was easily obtained. Vaginal examination showed that the uterus was small and pushed to the left. The left cul de sac was free, but the right was flattened by the tumour which was found in the abdomen, and which, on bimanual examination, proved to be one and the same tumour.

The diagnosis was cystic fibroma with ascites.

To relieve the distressing symptoms the abdomen was aspirated in the middle line. The fluid that escaped was of a yellow colour, viscid, and in all respects similar to the fluid removed in the first case. Shortly after its escape it coagulated and became a mass of jelly. Subsequent operation confirmed the diagnosis of cystic fibroma.

The spontaneous coagulation in these two cases was due to the relatively large proportion of fibrin contained in the fluid, a peculiarity which is especially observed when the effusion is of an inflammatory rather than a mechanical origin.

Cæsarian Section.¹—In 1880 Sänger, of Leipsic, introduced some new points in the method of performing Cæsarian

¹ *Journal de Médecine*, Feb. 1887.

section with very satisfactory results. Other operators have followed his method with equal success. The operation is divided into several stages:—

1. *Preparatory*.—Two assistants are necessary. The abdomen, vulva, and vagina are thoroughly washed with corrosive sublimate; the instruments are placed in carbolic acid solution. Instead of sponges cotton-wool may be used, but in any case they are soaked in sublimate, carbolic solution, or some antiseptic.

2. *Abdominal Incision*.—This is made along the linea alba. Forceps or ligatures to stop hæmorrhage are superfluous. It is not advisable to draw out the uterus before it is opened, as the abdominal incision will have to be enlarged and the intestines may prolapse.

3. *Uterine Incision*.—This must be in the middle line of the anterior wall, of medium extent, the lower segment of the uterus being avoided. The extraction of the foetus is most easily and rapidly made by traction on its feet. If there is any difficulty with the head the incision in the uterine wall must be extended upwards.

4. *Withdrawal of the Uterus from the Abdomen*.—A cloth soaked in an antiseptic is laid upon the intestines and another wrapped round the uterus. An elastic ligature is then placed round the inferior segment of the uterus to stop hæmorrhage; in the absence of an elastic ligature, compress the lower segment with the hands or twist the uterus on its longitudinal axis; then extract the placenta, and, having ascertained that the cervix is permeable, dust the uterine cavity with iodoform.

5. *Sutures*.—Reflect the peritoneum for about 1 centimetre along the entire edge of the uterine wound, and resect a strip of muscular tissue on each side. This, however, is not necessary if the peritoneum has not retracted and the muscular tissue is not swollen. The sutures comprise a deep and a superficial set.

The deep sutures are of fine wire, and are passed through the serous and muscular tissue but not through the uterine

caduca. Eight to ten of these are used, and each should be inserted some distance from the edge of the wound. The superficial sutures include only the peritoneum, are sixteen to thirty in number, and are of fine silk.

6. *Washing the Uterus.*—A sublimate solution is used; iodoform is dusted on to the line of the suture; the uterus is replaced in the abdomen as soon as all hæmorrhage or oozing has ceased. If there is any indication a careful peritoneal toilet is made. No drainage is used. The abdominal wound is closed by silk sutures, and the line of incision powdered with iodoform. Light iodoform dressings are applied and are fixed by strips of plaster. A vessel containing ice is placed on the abdomen and a hypodermic injection of ergotine completes the operation.

7. *After treatment.*—As little as possible. Säger considers the uterine suture the most difficult part of the operation. Antiseptic precautions in all their details he considers are absolutely indispensable.

Of 30 cases, 21 mothers have recovered—that is, 73·3 per cent.; 8 have died, or 26·7 per cent. Of the infants, 26 have lived, or 90 per cent. Leopold, of Dresden, has operated eleven times. Ten mothers and eleven children have lived. These results are far superior to those obtained by Porro's operation.

Physiological Delivery. By M. AUVARD.

Delivery is a physiological act, though at times, owing to some accident, as hæmorrhage or partial or complete retention of placenta, &c., it becomes pathological.

Separation of the placenta and membranes from the uterus is due, according to Baudelocque, to hæmorrhage; according to Mathews Duncan, to contraction and retraction of the uterus. Expulsion of the uterine contents is brought about by the uterus contracting on itself. The placenta is driven into the vagina, its fœtal surface descending first as a rule, but sometimes, and more rarely, the placental edge or

maternal surface. The expulsion of the placenta and membranes from the vagina is caused in a small degree by contractions of the vaginal walls, but more especially by the contractions of the abdominal muscles.

There are three methods of conducting physiological delivery: (1) Expectation, (2) Traction, (3) Expression. In the great majority of cases expectation is the usual and best method to be followed. Allow nature to act.

When and how ought traction to be made? Never, until the placenta is separated and is beyond or at the uterine orifice, ought traction to be used.

How is it to be made? By taking the cord wrapped in a dry cloth and drawing gently downwards. As soon as the placenta is born, it is taken in both hands and with the membranes carefully removed. Expression was introduced by Crédé, who thought it more advisable to push than to drag out the placenta. The idea is to replace a *vis a fronte* by a *vis a tergo*. After delivery of the foetus a short time is allowed to elapse, then with each uterine contraction the uterus is squeezed by the hand in the same way as a sponge is squeezed when it is wished to empty it of water. This method of expression, besides favouring the expulsion of the placenta, helps the uterus to contract and retract. According to M. Auvard, the Germans prefer expression, the French traction, while the English are undecided which of the two methods is the best. This is hardly correct. That a few English authorities advocate the use of traction is undoubtedly the case, but the majority of English obstetricians employ expression as the best, easiest, and safest plan of delivering the placenta and membranes. M. Auvard is of opinion that expression is painful and favours the retention of the membranes. There is in some cases a certain amount of pain, but this is not invariably the rule, and the membranes are not as liable to be torn and separated from the placenta and retained as when traction is employed. Then there are certain undoubted objections to traction. First of all, this method predisposes to hæmorrhage, especially if not very carefully performed. After

the passage of the foetus there are small tears and fissures in the vaginal wall, and the introduction of the fingers or hand to make traction may be the means of introducing some septic matter, even though antiseptic precautions be used.

The above is a brief abstract of a very interesting and important article by M. Auvard in the 'Gazette Hebdomadaire' for 1887.

Note on Antifebrine. By Dr. DUJARDIN-BEAUMETZ.¹

This substance has remarkable properties. It is the result of a combination of aniline and acetic acid. It has a bitter taste, is slightly soluble in water, freely so in alcohol.

It may be administered either in the form of a wafer, in wine, or as the Elixir of Garrus.

In a large dose it has toxic effects; 2 grammes administered to a rabbit produced death by lowering the temperature and altering the blood corpuscles. It acts upon the nervous system, especially upon the upper part of the spinal cord. Its therapeutic action is of two kinds. In febrile conditions it lowers the temperature considerably but irregularly, and produces a cyanotic condition.

In the second case, where the spinal cord is affected, it acts in a wonderful manner. The excito-motor action of the cord is overcome and tabetic pains are relieved if 1 gr. to 1½ gr. is taken twice or three times a day.

It is also useful in neuralgia and epilepsy.

ANNALS OF GYNÆCOLOGY AND OBSTETRICS.

Professor Pajot in his farewell address to his students made some remarks on the relations of obstetrics to gynæcology. These remarks were induced by a female who had entered his wards in labour, who two years previously had submitted to amputation of the cervix.

On examination there was complete absence of the cervix

¹ *Journal de Médecine de Paris*, Feb. 1887.

uteri, and in its place was felt a small orifice surrounded by hard resisting fibrous tissue. Though the patient had been in labour some time the pains were not as regular or as energetic as is usual, and, considering the state of the tissues around the small orifice which did duty for the os uteri, the termination of labour seemed likely to be prolonged. Under these circumstances it was decided to wait, to watch the progress of the mother and child, and to interfere only on some definite indication presenting itself. But how to interfere? At first a catheter might be introduced through the orifice into the uterus to provoke stronger and better contractions, and, if the contractions did not dilate this orifice, it would be advisable to make incisions on each side of the orifice in order to favour dilatation. In default of any definite indication it is always advisable to wait so long as the mother does not run any risk.

In the present instance, labour was allowed to proceed by itself, with the result that delivery was subsequently accomplished without any sinister results to mother or child, and both continued to do well.

Professor Pajot impressed upon his hearers the importance under special circumstances of waiting and watching.

It was Demosthenes who said that the three qualities for an orator were—1st, action; 2ndly, action; 3rdly, action. Professor Pajot lays down as the three qualities for a successful accoucheur—1st, patience; 2ndly, patience; 3rdly, patience.

Multiple Placentas in Single Pregnancies.

By Dr. A. RIBEMONT-DESSAIGNES.

The author in this journal gives us a long and elaborate account of 25 cases of multiple placentas in single pregnancies. Each case is published in full, and would occupy too much time and space were we to do more than merely note the conclusions.

The mono-discoidal placenta is not confined exclusively to the human species, it is found usually in the large anthropoids ;

thus Owen and Huxley have described the single placenta of the chimpanzee. Deniker has found the placenta of the gibbon to be composed of a single disc, while Breschet has described the placenta of the same tribe of monkey as being formed of two separate and distinct masses.

Double placentas are sometimes observed in the human species, and cases are described by Dubois, Ebert, Cazeaux, and Tarnier in support of this fact.

During the three years 1883 to 1886 there were 6,701 deliveries at the Maternity of Paris: of these there were 19 placentas with one or more accessory lobes—that is, one placenta in every 352 were double.

No particular value must be attached to the placenta from a morphological point of view, considering the variableness of this organ.

It appears that the bi-discoidal placenta is an interesting example of return to an inferior type of organisation.

Double placentas differ from each other both in the number, size, and arrangement of their discs. The point of insertion of the cord, the extent and position of the membranous bridge uniting the discs, are also liable to much variation.

SURGICAL SOCIETY.

DECEMBER, 1886.

Dr. Championnière related for M. Bruch a case of extra-uterine foetation. The patient was 27 years of age, and had advanced eight months in her second pregnancy, when false labour pains came on. Extra-uterine foetation was diagnosed, and the foetal cyst was opened into by an incision in the inguinal region. The incision was too small to allow of the foetus being delivered alive, and embryulcia was practised. The result to the mother was satisfactory, except that for some months afterwards she suffered from a fistula in the site of the original incision.

Two other cases were brought forward by Dr. Championnière, in which laparotomy had been performed with

success. In each of these two last cases the incision was of considerable length.

Dr. Terillon gave the results of 35 ovariectomies performed by him. The 35 cases comprised—29 multilocular ovarian cysts, 4 parovarian cysts, 1 sarcomatous tumour of the ovary, 1 dermoid cyst. There were four incomplete operations and six deaths, three from shock and three from peritonitis. Ovariectomies are more successful now than formerly, probably owing to complete antisepsis, abolition of the spray, and the free washing of the peritoneal cavity with boiled and filtered water.

Another case of extra-uterine foetation is related by Dr. Bouilly. This patient was about six months advanced in pregnancy when she experienced severe pains simulating labour pains, which were complicated with symptoms of peritoneal inflammation. In consequence of these symptoms and the dangerous condition the patient was in, extra-uterine pregnancy was diagnosed and laparotomy performed. When the peritoneum was opened the foetus was found to be macerated. It was lying in a sac formed by false membranes and peritoneal adhesions. The foetus was withdrawn and the placenta left *in situ*, as attempts to remove it gave rise to serious hæmorrhages. The sac was washed out with antiseptic solutions, and a double drainage tube was placed in the lower angle of the wound. In less than two months the patient left the hospital cured, having only a small fistulous track in the lower angle of the wound where the drainage tube had originally been inserted.

Czempin relates two cases of extra-uterine foetation. In the first case the size of the uterus corresponded to that of a four months' pregnancy. Behind the uterus was a tumour, elastic, a little larger than a foetal head. The tumour was connected with the uterus and pelvic organs. The diagnosis was, tumour of ovary complicating pregnancy. As it was thought that delivery at term would be impossible owing to this tumour, abdominal section was performed. Removal of the tumour was extremely difficult, owing to the dense and

numerous adhesions. When the tumour was opened it was found to contain a foetus and placenta.

In the second case a lithopædion was removed.

Abdominal Operations for Displacements of the Uterus (Olshausen).—Abdominal section is performed in order to catch up one of the cornua of a displaced uterus and fix it to the abdominal wall. This is especially worthy of trial when abdominal section has been performed for tumours in which a displacement also exists and which has resisted treatment.

The Surgical Treatment of Vesico-vaginal Fistula (Rydygier).—The author has performed 21 operations for this condition. The method he always employed was Simons'. In only two of the cases did he fail at the first operation. In the first the neck was cut laterally too high, allowing too great a mobility of the vaginal portion. Two complementary operations, however, brought about perfect occlusion. In the second case, as the result was not quite satisfactory, a flap was taken from the posterior vaginal wall and perfect occlusion obtained.

Inversion of the Uterus (Kehrer).—There exist two principal varieties of inversion: (1) The fundus of the uterus is at its normal level, sometimes even at a higher level. It is the uterine mucous membrane, alone or accompanied by the deeper layers of muscular bundles, which, yielding to the weight of a fibroma, becomes inverted. (2) In the second variety, the whole uterine wall is prolapsed and inverted. Seen from the abdomen it has the appearance of a funnel. In the first case it is necessary to enucleate the tumour and bring together the edges of the wound. In the second case amputation of the uterus is indicated.

Removal of Cysts of the Tubes (Gusserow).—Gusserow has operated on 14 suppurating cysts of the Fallopian tubes. The lesions have always been perimetritic. The peri-uterine inflammation appears to him to occupy the first place in the etiology of this affection, and is generally brought about by gonorrhœal infection. The result is inflammation of the tubes, closure of the canal, and the encystment of pus. One of the

principal symptoms is menorrhagia, which comes on at the menstrual periods. This menorrhagia is brought about by the disorder of the circulation due to the distension of the tube in the thickening of the broad ligaments.

Gusserow thinks the dangers of rupture of the cyst and consecutive peritonitis are overrated. Frequently during an operation for the removal of these cysts rupture has occurred and the contents have escaped into the peritoneal cavity, without convalescence being in the least degree disturbed. His 14 cases have all recovered.

Diseases of the Tubes (Martin).—From observations made in 287 cases, Martin concludes that inflammatory disease of the Fallopian tubes is very frequent, owing to a spread to these structures from catarrhal inflammation of the uterus, puerperal affections, gonorrhœa, and tuberculosis. The disease affected the left side only in 138 cases, the right side in 58 cases, the remaining cases being bilateral.

There are two distinct forms of salpingitis: (1) Interstitial endo-salpingitis, (2) Follicular endo-salpingitis.

There is a degeneration and destruction of the epithelium and muscular elements; the lumen of the tube becomes occluded in one part and extended in another, and finally suppuration takes place.

The principal symptoms are pains, menorrhagia and sterility.

Oöphorectomy in Neurotic Affections (Schroeder).—Removal of the ovaries for neurotic conditions Hegar divides into two classes: (1) When the ovaries are plainly diseased; (2) When the ovaries are evidently healthy. The indications for the first class of cases are evident; in the second class, however, there are objections to removing the ovaries, and Hegar is of opinion that the operation should only be performed when one or both ovaries are in a pathological condition. Schroeder is of a different opinion. It is not known whether neurotic conditions are influenced by the pathological state of the ovaries, or, if they are, how far the connection exists. It is well known that very marked nervous

troubles are lessened or done away with at the menopause either artificial or natural, although there may have been no marked pathological modifications of the ovary. It is difficult also to draw the line between the normal and diseased condition of the ovary.

Many cases of removal of the uterine appendages for neurotic conditions have been reported, with a success in the majority of cases which would point to the operation being quite justifiable. The main point to be aimed at is to try to define exactly what are the suitable cases.

Amputation of the body of the Uterus, after Laparotomy, in a case of retained Placenta and Puerperal Septicæmia (Schultze).—The patient had had a miscarriage at six months. The placenta was retained, and owing to the smallness of the neck it could not be delivered. Symptoms of septicæmia set in with high temperature. Owing to the symptoms laparotomy was done, and the operation completed by removal of the body of the uterus above the vagina. The result was arrest of septic symptoms and complete recovery. Schultze hopes that many septicæmic cases which now die will in time be saved by this operation.

Purulent Ophthalmia in New-born Infants (Cohn).—Cohn has compared the results obtained by the use of nitrate of silver, sublimate, &c., in purulent ophthalmia, with those obtained by a strict antiseptic treatment during delivery and perfect cleanness subsequently, and concludes that an obligatory prophylaxis is superfluous.

As regards virulent ophthalmia, he recognises the existence of a conjunctivitis which has no relation with any micro-organisms.

Treatment of Placenta Previa (Wyder).—Wyder thinks that version by the combined method in placenta previa is the proper treatment, instead of the plan usually adopted of first plugging the vagina and afterwards turning. His objections to this last plan are: (1) hæmorrhage is not arrested for certain; (2) there are dangers of infection; (3) the lower segment of the uterus may be torn; (4) the

necessity of manual extraction of the placenta ; (5) the loss of time.

By Wyder's method the greater loss of infants is quite compensated for by the greater saving of the mothers' life.

The Treatment of Uterine Flexions. By Dr. OLIVETI.¹

Dr. Oliveti in this article records his opinions with regard to uterine flexions, and advocates the use of a method originated by him, and which has been found by him to give excellent results.

Of 100 women with diseases of the uterus, 60 had displacement of that organ in one or other direction, and out of the 60 the majority were cases of uterine flexion.

Flexions of the uterus are not met with more frequently because of an error in diagnosis, due to the medical man depending too much on the results obtained by examination with the speculum or uterine sound, means altogether insufficient to study the true position of the uterus.

The chief methods of accurately determining the position of the uterus are, according to Dr. Oliveti :—

1. Careful vaginal examination made with the finger.
2. Examination of the uterine cavity with a sound appropriately curved for each individual case.
3. Rectal examination.

While many authors have denied the importance or frequency of uterine flexions, Dr. Oliveti agrees with the observations of Barnes, Schultze, and of Graily Hewitt, who have shown the importance of these displacements, and have laid down rules for their special treatment.

The symptoms of uterine flexions are local, general, and reflex. Amongst the local are abdominal pains, sometimes situated in the hypogastric region, sometimes in the ovarian, inguinal, or pubic region, while at other times the pains are met with in the thighs or in the loins. Sometimes also there is an obstacle to the passage of fæces or urine. Other local

¹ *Archives de Tocologie*, December 1886.

symptoms are dysmenorrhœa, menorrhagia, leucorrhœa, sterility, and abortion. The general symptoms consist in disturbance of the functions of the digestive organs, in a want of nutrition, and difficulty in walking. The reflex symptoms met with most constantly are nausea, vomiting, and important psychical disturbances.

In order to treat uterine flexions rationally it is necessary to determine : (1) the degree of uterine curvature ; (2) if the flexion is complicated with version or is a simple flexion ; (3) is the flexion recent or of long standing ; (4) what is the state of tonicity of the uterus ?

The reduction of the organ is always possible provided it has not become fastened down by adhesions. The aim of the medical man in these cases must be to replace the displaced organ, to maintain it in its normal position, and to prevent as much as possible its return to an abnormal position.

Dr. Oliveti's plan of treatment consists in rectifying the malposition of the organ with a sound in the usual manner, then placing the patient in the horizontal position. Two days after this, or even next day, the reduction of the uterus is again effected, and this is continued for some days. At the same time, if there is no contra-indication, tampons of cotton-wool are placed in the culs de sac of the vagina.

In the case of retroflexion the tampons are placed high up in the posterior cul de sac, behind the neck of the uterus. This treatment is continued for a short while before a pessary of any kind is introduced. The instrument used by Oliveti is a Hodge modified by Smyt.

In complicated cases (and these are the majority) the method of treatment is somewhat different. Reduction having been made in the ordinary manner, dilatation of the uterine cavity with a metallic instrument of his invention is made ; to this is added the frequent use of an intra-uterine stem. The dilator is a simple instrument with two arms, very like a compass for drawing. The uterine extremity is smooth, and joined to the inferior by means of a curved part. The length of this uterine end is slightly less than the length of the

uterine cavity. The inferior extremity carries two screws on the right arm of the instrument. The lower one is to bring the two arms together during introduction ; the upper screw is to effect dilatation. Care must be taken during the operation not to allow the instrument to slip out. Dilatation is made to a different degree in each case according to necessity. Pledgets of cotton-wool soaked in some astringent or antiseptic solution are next placed in whatever position will keep the uterus in its normal position.

This treatment can be carried on for a considerable time with benefit to the patient, as it straightens the uterus and shortens the cervical canal. It favours also the production of exudation in that part of the uterine wall which has become atrophied. The dilatation also favours the escape of the secretions of the uterus, and thus is a cure for dysmenorrhœa, congestion, and other uterine ailments. It is this exudation into the uterine wall already straightened which forms a kind of support to the uterus and prevents any fresh displacement.

In conclusion, Dr. Oliveti is of opinion that : (1) uterine flexions are frequent, and their treatment should occupy an important place in gynæcology ; (2) they are curable, or capable of great improvement ; (3) in order to treat them properly, different methods must be employed ; (4) the radical cure of flexions consists chiefly, besides complete reduction of the organ, in destruction of the atrophy existing in the wall of the uterus ; (5) to obtain this result dilatation of the uterine cavity and cervix must be resorted to, and in some cases stem pessaries must be employed ; (6) the pledgets of cotton-wool are extremely serviceable in slight cases without the employment of any other means.

Mammary Lymphangitis during Lactation.

By Dr. M. A. CERNÉ.

Of all the theories with regard to mammary abscess that of Nélaton's is constantly gaining ground. According to this theory, it is the lymphatics which are the site of the inflam-

mation. The lymphatic circulation in the breast is extremely rich, and consists of a superficial, or cutaneous, and a deep, or glandular, set of vessels, forming an extensive and intricate network connected with each other, and which all converge towards the areola of the nipple. It is this fact which explains the rapid and extensive diffusion of many abscesses of the breast. There is no doubt the point of departure is the nipple, so often irritated or excoriated during lactation, especially in primiparæ. Frequently there are to be found on the nipple ulcerations, cracks, or fissures, which cause the pain felt by the patient as soon as the infant takes the breast.

In favour of Nélaton's theory it may be pointed out that the affection begins suddenly, preceded by rigors, and attended by a febrile action similar to that which generally accompanies lymphangitis. There are two objections, however—the first being that, contrary to what one generally sees in lymphangitis, the axillary glands remain unaffected by the glandular inflammation of the breast ; the second objection is that the inflammation pursues a course in a direction opposite to the passage of the lymph.

The first objection can hardly be sustained, as it is only in extremely rare cases that the axillary glands are not enlarged or tender if careful examination be made, and enlargement of these glands has even been observed in very many cases which have not gone on to suppuration. The second objection to this theory is more plausible. It is certain that lymphangitis of the capillary network frequently extends to the trunks and glands, but the cases where the inflammation extends directly to the main trunks without invading the capillary network surrounding the seat of mischief are extremely uncommon. If ascending lymphangitis is the most frequent, descending lymphangitis is by no means common.

From many observations made by him, Dr. Cerné believes that mammary lymphangitis should be admitted as perfectly plausible, as presenting in its local and general characters all the phenomena by which lymphangitis is recognised, while it is not opposed to the laws of pathological physiology.

Prolapsus Uteri, Cystocele, and Rectocele.—The patient was a laundress, aged 40 years. She had had three children, the last nine years before admission to hospital. Three days after this last confinement she resumed her work, and during a straining effort she suddenly experienced acute pain, and saw between her legs what appeared to her as a tumour. Her periods became very profuse, but not painful. On examination at the time of her entrance into the hospital it was found that there was an hypertrophied elongated cervix uteri with cystocele and rectocele. The neck was accordingly amputated. The operation did well, and the patient soon recovered.

The cystocele, however, remained with the rectocele, and constituted a very troublesome infirmity. To rectify the cystocele, anterior elytrorrhaphy was performed in the usual manner, the result being all that could be wished for. Two months after the amputation of the neck was done, the posterior wall and entrance of the vagina were pared in order to narrow them. This operation of colpoperinæorrhaphy succeeded as the two other operations had. The vulva is now narrow, and the three operations may be considered a complete success in every way. The patient can now perform her usual routine work.

Dr. Bourgarel relates a case that came under his care of ovaritis coming on during an attack of tonsillitis. The patient was a married woman, 24 years of age, very nervous and excitable, and liable to attacks of tonsillitis. When Dr. Bourgarel saw her during the attack which forms the subject of his communication, the patient was suffering from acute double tonsillitis. During the course of treatment, and just as convalescence was setting in, the patient had a severe hysterical attack, which was followed by acute pains in the region of the kidney, passing down into the pelvis and being most marked in the ovarian region. The patient, who was generally regular, became unwell eight days before the usual time, a circumstance that had never happened before, though she was subject to tonsillar affections. The ovarian pains were relieved by warm poultices sprinkled with tincture of

belladonna. The marked feature of these cases of tonsillar ovaritis is the appearance of the ovaritis during the disappearance of the tonsillitis, as pointed out originally by Dr. Joal.

Certain Difficulties in the Diagnosis of Pregnancy.—

There are cases which present themselves from time to time in which diagnosis is extremely difficult, and in which it should be postponed. The following case is such a one :—

The patient, 36 years of age, was single. Her periods, which began at 13 years, had always been regular. She had had one child born at full term when she was 21 years of age. Since then she admitted to only a single act of coitus, on March 21st, during her periods. These were the last she saw.

On April 20 the patient fell down a staircase while carrying a basket of clothes and was slightly bruised, but nothing more.

On August 9 she noticed a red and rather profuse discharge. She was examined by a doctor, who, suspecting an intra-uterine fibroid growth, introduced a sound into the uterus to the length of seven centimetres. As the hemorrhage continued and the patient was daily growing weaker, she entered a hospital, where false labour was diagnosed. Two days later (September 10) she went to another hospital, where the diagnosis of fibrous tumour was made.

The wrong diagnosis had been made owing to the persistence of the metrorrhagia, and the fact that the sound had passed only seven centimetres.

In the last hospital she went to the following were the notes :—‘The abdomen is enlarged, with a swelling in the middle line. Palpation showed the swelling to be hard, regular, with smooth surface, the larger end pointing upwards in the middle line and passing up two finger breadths above the umbilicus.’ ‘Vaginal examination showed that the cervix was high up, enlarged, hard, and slightly patulous. Both vaginal culs de sac were empty. Bi-manual examination showed that the cervix and tumour in the abdomen were movable and closely connected.’ Such were the only signs one found connected with the metrorrhagia. There was no

morning sickness, no foetal movements in the uterus, nor other signs of pregnancy.

Expectant treatment was tried, the patient being ordered three cups of black coffee a day to try and lessen the flooding.

On September 22 the patient had several severe rigors; sulphate of quinine was ordered. On September 23 patient was delivered of a six months foetus.

The case shows that in females who are still within the child-bearing period pregnancy must always be thought of, and in order to avoid a mistake in diagnosis the most certain way is to wait until nine months have passed since the commencement of the tumour.

There are other cases where a correct diagnosis is extremely difficult, as in placenta previa, the placental insertion being near the neck of the uterus, or in inflammatory complications around the uterus. A tumour situated in the middle line of the abdomen should always arouse the suspicion of the medical man.

Imperforate Anus.—Communication of Rectum with Bladder.—The subject of this communication was a newly born infant of the male sex, who had, since its birth, vomited bilious matter and meconium.

On examination it was found that the anus was absent, being merely marked by a slight depression in the skin. The infant was well formed in every other respect. An incision three and a half to four centimetres long and one and a half in depth was made in the perineal region. On passing the finger to the bottom of the incision slight fluctuation was felt, and puncture gave issue to a large quantity of meconium. When the primary incision had been conveniently enlarged the mucous layer of the gut was stitched as closely as possible to the edges of the skin. The patient did well for a few days and then died. At the autopsy the following state of things was found: the alimentary canal was normal to within about two centimetres of the proper site of the anus. At this point the rectum was extremely contracted so as to appear like a small anus. In the centre was a small canal, still persistent,

about one and a half millimetre in diameter, which passed to the bladder but was shut off from that viscus by a thin layer of fibrous tissue ; this canal contained absolutely nothing. No cause could be found for the child's death.

Painful prolapsed Ovary ; Vaginal Ovariectomy.—This operation was performed on a girl eighteen years of age, who had been in perfect health until about two years before, when she fell violently to the ground while playing with some companions. Shortly after this accident her periods, which had always been rather irregular, became more so, while she began to experience pain with them. At the end of some months the dysmenorrhœa became almost intolerable.

On vaginal examination the right ovary was found fixed in the bottom of Douglas's pouch.

There was nothing remarkable about the operation, which was performed in the usual manner. The Fallopian tube on the same side was found to be enlarged and hypertrophied. The vaginal incision was not sutured, but tampons of iodoform were packed into the vagina. There was no elevation of temperature, and recovery was rapid and complete.

OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY OF PARIS.

Retention of Membranes. By Dr. DOLÉRIS.

The two following propositions were brought forward as the proper modes of treatment in cases of retained membranes :—

‘ 1. In delivery at full term, or near full term, when the membranes (not the placenta) are altogether or in part retained, an antiseptic expectant treatment is the best one.

‘ 2. Interference is only indicated if putrid decomposition of the ovum is found at the time of delivery, or if, owing to the expulsion of the ovum, a septic endometritis has been set up.’

Observations have shown the harmlessness of the retention of membranes either at full term or near that time. Infection

is the exception, and when it does happen, it is more probably due to septic metritis than retention of membranes. Hæmorrhage is rare in every case, and when it does come on it is slight.

DISCUSSION.

Dr. PAJOT objected to the propositions, as they might lead to dangerous consequences, either directly or indirectly. He advocates the use of the curette, or forceps, to remove the remains.

Version by External Manipulation. By Dr. PAJOT.

The author wanted the opinion of the Society on this subject. He has performed it, and is a strong upholder of it when it is necessary to rectify a mal-presentation. In such a case he would not hesitate, but is it applicable to breech presentations? The mother in these cases runs hardly any risk, and the risk to the child is small. A distinction must, however, be made between breech cases occurring in multiparæ and primiparæ. In the case of the last the danger to the child is increased, and this fact would seem to justify version in breech cases. Unfortunately in primiparæ the operation is difficult, often impossible, and almost always dangerous, because the long diameter of the fœtus has to pass the transverse diameter of the uterus. Dr. Pajot related a case where the operation had been tried, with the result of rupture of the uterus. In multiparæ, however, the operation is easy, but in these women the danger to the child is very small.

The important point in this operation is not to hurry, nor to displace the arms or the head by premature traction. To do nothing unless there is some distinct indication is the proper treatment.

DISCUSSION.

Dr. Guéniot thought a distinction should be drawn between midwives and medical men. The rate of mortality amongst infants born by the breech will vary according as the labour is

conducted by a midwife or a doctor. Breech presentations conducted by a skilful accoucheur present no dangers, even to the child. The dangers to the child delivered by a skilled practitioner by means of external version will be quite as great as the dangers to a child delivered in the ordinary way by a person less skilled, and he fails to see the benefit to be derived from the operation.

Dr. Doléris has frequently had occasion to try version by external manipulation, and has often succeeded, but in primiparæ has more often failed. It must be remembered that the operation sometimes fails owing to some abnormality on the part of the fœtus or of the mother. Again the very conditions which brought about the breech presentation may be the cause of rendering the version difficult.

Dr. Charpentier cannot understand what benefit is to be derived from version in breech presentations. As Dr. Pajot has said, so he thinks that in multiparæ the operation is easy but useless, while in primiparæ it is difficult, dangerous, and sometimes impossible. The dangers in breech cases are always due to undue and hasty interference on the part of the midwife or doctor. In breech cases patience is required, as the engagement and descent of the fœtus is slower than in vertex presentations. Do not hurry or hasten, but watch carefully the pulsations of the fœtal heart. There are a certain number of breech cases occurring in primiparæ where the uterus does not react, where the child is small, and the amniotic fluid is in excess. In such version may be tried, but in all others the woman will be exposed to danger.

Dr. Porak thought the danger was due to imprudence and that every trial should be carefully made. Without doubt one meets with difficulties, some of which have been mentioned, and to which he would add engagement of the breech, which constitutes an absolute contra-indication. In the majority of cases, however, he thinks there are advantages to be gained by version.

Dr. Verrier thought the Society ought to express some opinion on the subject so as to guide the practitioner, and to

enable him to resist the insinuations, more or less interested, of the midwives.

. Dr. Olivier was of opinion that in extremely slow cases version was the proper treatment. The operator must use his own judgment and not practise meddlesome interference. He had often performed version by external manipulation with great benefit and success. He would lay it down as a rule that in all cases of breech presentation, if the breech is not engaged, version must be tried. If it proves difficult at first, stop and try again later on, if not successful this time it had better not be again attempted.

Puncture of the Uterus in Acute Hydramnios.¹—This was performed on a woman, 37 years of age, married, four previous pregnancies, the second being a twin one. Her history was that for at least five months she had missed her menstrual periods, and considered herself between five and six months pregnant. Her previous pregnancies had always been natural, and her deliveries easy. From the outset of the present pregnancy she had suffered from a feeling of chilliness, and her abdomen was large and painful. On examination her abdomen was found to be enormously distended, and occasioned her great pain; her face was livid and she breathed with great difficulty. The tumour was found to be full of fluid, with here and there points of resistance which changed their position from time to time. The diagnosis lay between a unilocular ovarian cyst and hydramnios, and in order to settle this point a puncture was made with an ordinary trocar. The fluid that escaped was very transparent, clear, of a light straw colour, with entire absence of viscosity, and resembled amniotic fluid. Seven litres of the fluid were drawn off, and gave great relief to the patient. While the tapping was proceeding foetal movements were felt. Over the external abdominal wound made by the trocar collodion was placed, and to stop uterine contraction hypodermic injections of morphia, with opium injections per vaginam, were ordered. The

¹ *Archives de Tocologie*, December 30, 1886.

operation relieved the patient greatly, and she was soon in perfect health. Abortion did not follow.

Dr. Tillaux, who reports this case, is in favour of tapping the uterus, drawing a certain amount of fluid off, and leaving a sufficient quantity in the uterus to allow of free floating of the foetus. This tapping can be performed safely through the abdominal walls, and is not so likely to bring on abortion as it would if made through the cervix uteri.

Some Tumours of the External Genital Organs.

By Dr. FURST.¹

The author reports some rare and interesting cases of tumours situated on the external organs of generation.

1. **Fibrous Polypus growing from the Right Labium.**—This occurred in a married woman, aged 40 years, who had borne two children. During her first pregnancy she noticed a small swelling on the right labium. This gradually increased in size, and in time became pedunculated. There was no fluctuation to be felt. There were a few small ulcerations on its surface. It was removed, and examination showed it to be a soft fibrous polypus.

2. **Sarcoma of the Left Nympha.**—This happened in a woman aged 38 years, married, mother of eleven children. The growth was first noticed six years before, as a tumour the size of a nut springing from the inguinal region and descending between the labia. Two years ago the tumour began to be painful, and quite lately it assumed a blackish colour. The tumour was excised, and, on examination under the microscope, it was found to be formed of fusiform epithelial cells, separated from each other by vessels and a small amount of connective tissue.

3. **Vaginal Cyst.**—This was removed from a woman, aged 36, mother of six children. Five years previously a slowly growing tumour was noticed in the lower part of the

¹ *Archives de Tocologie*, December 30, 1886.

vagina, and in time became slightly pedunculated. Rectal examination showed it was not a rectocele. The cyst was removed, and found to contain mucous, epithelial cells, fatty substances, but not crystals. The absence of cylindrical epithelium and the situation of the cyst seemed to point to its being an unobliterated canal of Gartner.

On Goitre dependent on Pregnancy and Delivery.¹—Dr. A. de Burine, who has published a thesis on this interesting subject, relates, in support of his remarks, three cases observed by him. There is no doubt the thyroid gland and the generative organs have a sympathetic relation, the nature of which is as yet unknown, and cases have been reported in which there has been an enlargement of this organ when the periods were first established or at the menopause.

In pregnancy also hypertrophy of the thyroid has been observed, and it has been stated that this hypertrophy is by no means rare, and would be noticed more frequently were it not for the fact that the enlargement is symmetrical and causes no disfigurement to the neck. This increased size of the thyroid is stated by some authorities to be due to the excess of lymphoid corpuscles which are found in every organ of the body during pregnancy. Others again are of opinion that the hypertrophy of the left side of the heart plays by no means an unimportant part in the production of the goitre in pregnancy. Besides these other reasons have been assigned. Guillot has noticed the enlargement of this gland during pregnancy, and says, from facts he has observed, 'I am beginning to think that sporadic goitre during pregnancy is not as rare as one would suppose.'

Hermann Freung has gone more thoroughly into the question, and has found that out of 50 pregnant women examined by him 45 of them presented distinct enlargement of the thyroid. His conclusions, however, are marred by the fact that he took no care to eliminate such cases as presented any hereditary antecedents of goitre, or who came from a district in which goitre prevailed. The question is asked,

¹ *Archives de Tocologie*, January 1887.

‘Why does the goitre disappear after delivery in some women whilst it remains in others?’

The latter part of this question is answered shortly by saying that in those cases in which the enlargement of the thyroid exists there has been a chronic congestion and inflammation, so that the gland, besides being swollen with blood, is also enlarged by the production of new cellular elements. After delivery the gland subsides somewhat in size, but not completely, owing to this hyperplasia. At each succeeding pregnancy a similar hyperplasia takes place, so that in time a goitre of large size is formed.

In those instances in which the thyroid enlargement disappears entirely after delivery the tumour is said to have had a mechanical origin due to the efforts made by the woman during delivery. Under sufficiently strong and prolonged efforts a goitre can be formed in men as well as women.

Gosse, of Geneva, has seen these temporary enlargements of the thyroid brought about by mechanical causes, violent passion. Maignien, Cassan, Guyon, Luton, have all reported instances of thyroid enlargement brought on after some violent exertion or straining. Whenever there are prolonged efforts, or there is an obstacle to the venous circulation, the result is a congestion and stasis of the blood in the thyroid plexus, distension of the vessels, marked congestion of the gland determining a parenchymatous inflammation more or less chronic, though sometimes acute.

The conclusions arrived at are : (1) that it is by no means rare to find an enlargement of the thyroid gland beginning either on the establishment of menstruation or during the first or some subsequent pregnancy ; (2) this hypertrophy often remains stationary or decreases after the pregnancy which gave rise to it ; (3) instead, however, of remaining stationary or decreasing in size it may increase, and, by pressure on the trachea, may produce alarming dyspnœa ; (4) when it continues to increase in size some means must be adopted to stop it—this end is best obtained by injections of pure tincture of iodine into the mass ; (5) the existence of

pregnancy does not contra-indicate this injection ; (6) if the injection does not bring about the desired result soon enough, and the patient is threatened with suffocation, laryngotomy, with partial removal of the thyroid gland, must be performed with strict antiseptic precautions.

Retro-Uterine Dermoid Cyst. By Dr. MAKRIS,
Constantinople.

This happened in a medical man's wife, 25 years of age, and was treated first by puncture, then by a vaginal incision, with the result that she was quite cured.

Her monthly periods had always been regular up to the time of her marriage at 18 years of age. Forty days after that event she suffered from profuse metrorrhagia, which lasted four days, and was accompanied by some peritonitis. When the symptoms of inflammation had subsided, a large tumour was found to be situated between the womb and rectum, and had been diagnosed as something different by every medical man who had seen her. The last diagnosis was sub-peritoneal fibroid tumour, attached to the posterior uterine wall. When she was seen by Dr. Makris she complained of a feeling of fulness in the pelvis, of sharp shooting pains in the lower part of the abdomen. She was very easily tired by any exercise. Her monthly periods were quite regular, and an examination of her circulatory, respiratory, and digestive systems showed nothing wrong. The abdomen was swollen, and deep down behind the pubis could be felt a hard, smooth, immovable body.

Vaginal examination. In the posterior cul de sac was felt a hard, rounded, smooth body, with a certain amount of elasticity. This body pushed down the posterior vaginal wall and protruded into the vagina. Bi-manual examination showed that the tumour was almost immovable, and there was slight fluctuation. The uterus was normal. Examination per rectum gave the same results as above. The diagnosis

was a retro-uterine cyst, the contents of which could only be known after an exploratory puncture.

This was made through the vagina by a Dieulafoy's aspirator, and gave issue to a whitish liquid like pus, which hardened on standing and became like butter. The cyst was therefore evidently dermoid. The patient continued to do well for some time after this operation, and the tumour had entirely disappeared; but, some inflammatory symptoms setting in, the further progress of the patient towards recovery was retarded.

A large abscess formed and was opened by the vagina, antiseptic precautions being used, and the future progress of the patient was all that could be desired.

Eclampsia without Albuminuria, without Edema, and complicated by Puerperal Mania. By Dr. LÉONARD.

This happened in a servant aged 27 years. Her periods had always been regular, lasting five days.

At the time she came under observation she had advanced to the eighth month of pregnancy. The illness began with attacks of vomiting, which were followed next day by twelve convulsive attacks. In a short while coma followed, during which the patient was delivered of an eight months' dead foetus. The convulsive attacks began as twitchings in the face muscles. Then the face became immovable, the eyes looked in an upward direction, and tetanic contractions of the trunk muscles began. From the trunk the movements passed down the arms and legs. These tetanic contractions were shortly replaced by clonic ones. These convulsions lasted each about five seconds, and were followed by coma.

There was no œdema of the face or extremities; the urine was examined for albumen by various tests, but none was found. The various organs of the body were carefully examined, but all appeared healthy. Three days from the beginning of the attack the patient became very excited and had some hallucinations. The temperature was 37°·2, the

pulse 120 per minute. These hallucinations continued off and on for a few days, and then the patient quieted down.

During the whole period of the patient's stay in hospital, which extended just over five weeks, there was not the slightest trace of œdema to be seen anywhere, nor was any albumen found at any time in the urine, a circumstance the opposite to what generally obtains, for in eclampsia attacks albumen is generally found, if only a temporary trace. No causes can be given, either, for the attacks of puerperal mania.

SURGICAL SOCIETY OF PARIS.

Dr. Pozzi brought before the Society a female whose ovaries he had removed five months before. The operation was performed for abdominal pains which had followed delivery, and were very acute and not amenable to treatment.

The ovaries were tender and prolapsed, and their removal was difficult as they were so completely bound down by adhesions. The tubes were not removed. Both ovaries were found to be full of small cysts, many containing blood. The patient's convalescence was complete, and she was in very good health. Her monthly periods had not reappeared.

M. Terrillon related a case of oöphorectomy in a married woman, aged 49 years.

At 36 years of age the patient was attacked by violent abdominal pains with hysterical symptoms. There was dyspareunia. All medicines having failed to bring about a cure, the practitioner who was attending her amputated the cervix uteri, naturally without any result.

Subsequently the neck of the bladder and the anus were dilated, and the cautery was applied to the remains of the cervix uteri with the idea of relieving her, but without any result whatever.

When M. Terrillon saw her, as the pains were localised in the uterus and ovaries, he removed the latter, with the result that there had been decided and persistent improvement in the patient's state.

DISCUSSION.

M. Terrier, who has performed the operation twice in similar cases, wished to know if the hysterical condition of the patient had been modified at all. In one of his two cases there had been a decided improvement; in the second the pains had been relieved, but the hysteria persisted.

M. Verneuil related two similar cases that had occurred in his practice. One had been cured, whilst the pains returned at the end of eight days in the second case.

M. Sée thought this operation only gave good results when the ovaries were in a pathological condition.

Imperforate Hymen.—M. Desfontaine related a case of this kind which occurred in a girl 15 years of age. Owing to the retention of the monthly flow a large tumour was formed. The uterus was not dilated. The tumour was aspirated without antiseptic precautions and suppuration shortly set in. This was followed by pelvic peritonitis, which, however, was clearing up. He brought the case forward to show what dangerous accidents sometimes followed these operations.

Torsion and Rupture of the Pedicle of Ovarian Cystic Tumours.—Dr. Heurtaux relates a case of ovarian tumour in which the pedicle was twisted several times. During the operation it was noticed that the cyst wall presented the appearance of great congestion; there were many recent adhesions; the contained liquid was dark and bloody. An examination of the cyst showed that on the inner surface of the cyst wall were numerous openings, from which venous blood escaped on pressure. These openings were probably due to rupture, which had been caused by an excess of intravascular pressure following the twisting of the pedicle.

Another case is reported in which, after removing a cyst of the right ovary, a second tumour on the left side was found attached by a long pedicle to the mesentery. On examining this tumour there were found remains of the left ovarian ligament and left tube. There was no trace of torsion. Dr. Heurtaux explains this fact by saying the rupture of the

pedicle was probably due to the traction exercised by the mesenteric adhesions. A simpler explanation would be that the rupture was due to the pressure exercised on the smaller cyst by the larger one.

Torsion of the Pedicle of Ovarian Cysts.—M. Terrillon states that when the pedicle is long and there are no adhesions the cyst at times twists upon itself. If the twisting is moderate and slow it may pass unperceived. If, however, the twisting occurs suddenly there will be intra-cystic and intra-peritoneal hæmorrhages, and possibly rupture of the cyst. These accidents are to be attributed to the impediment to the circulation produced by the torsion. If the torsion is excessive all the vessels become obliterated, and gangrene of the cyst is the consequence.

One of the results of torsion is an alteration in and fall of the epithelium covering the cyst. This is due to defective nutrition, and results in adhesions which, while they may prevent the cyst from mortifying, are a cause of great difficulty in operating.

Out of 100 cases of ovarian cysts, M. Terrillon met with four twisted pedicles.

In three the pedicle seemed to be constricted by a fibrous ring, the adhesions were numerous and made the operation difficult. In the fourth case the pedicle was completely divided, and its extremities attached one to the cyst, the other to the corner of the uterus. The cyst had continued to live owing to its numerous adhesions. In cases of twisted pedicle it is advisable to operate soon and not to puncture. In acute cases with peritonitis, surgical interference is called for immediately and gives good results. In cases where there are adhesions and gangrene has set in, a large opening should be made in the cyst and free drainage used.

Vaginal Hysterectomy.—There are three steps in the operation Dr. Richelot claims to have introduced:

(1) Separation of the uterus; (2) treatment of the broad ligaments; (3) treatment of the wound. The great danger in vaginal hysterectomy has been ligaturing the broad ligaments.

By the method Richelot proposes two objects are achieved : (1) hæmorrhage is prevented ; (2) the length of the operation is shortened. Instead of ligaturing the broad ligaments, long pressure forceps are placed on these ligaments and left there twenty-four to forty-eight hours. The forceps act as drainage tubes. The wound is not closed. In every case of cancer of the uterus, if an operation is performed it should be vaginal hysterectomy by Dr. Richelot's method, and the amputation of the cervix should be abolished. It is a dangerous operation, and does not entirely remove the cancer.

In his opinion the operation he proposes might be extended to other diseases of the uterus, as painful bleeding fibromas, retroflexions when other treatment has failed, prolapsus uteri, inversion, and in utero-ovarian neuralgia. Though Richelot claims to have introduced this method of operating, we believe we are correct in stating that Péan was the first who introduced the method and advocated its advantages.

Forcible Extraction of the Uterus and its Appendages.¹—Dr. Gérard reports a case which happened in his practice in which a very novel and dangerous proceeding was adopted to remove a tumour of the uterus. He is careful, however, to point out that the operation is reported, not with the object of inducing other practitioners to follow in his footsteps, but to show the great tolerance of the peritoneum, and the harmlessness of serious operations, even when badly done, if the patient is in good health.

The patient was a poor woman, aged 42, suffering from retention of urine. Two doctors had been called to see her, and, having tried to pass a catheter, had completely failed.

Dr. Gérard was then asked to see her, which he did. He found the bladder greatly distended, reaching about 3 inches above the umbilicus. The cause of the retention was not far to seek. On passing the examining finger into the vagina a tumour was felt, hard, nodulated, the size of a foetal head. On passing the finger high up into the posterior cul de sac no os uteri could be made out, but in its place was a large

¹ *Gazette de Gynécologie*, January 1887.

fungated vegetation from which came a very foetid odour. The question of malignant disease was put aside as the patient was in good health ; there was no emaciation ; the cancerous cachexia was absent, and no enlarged glands were to be found anywhere. On the other hand, though several circumstances supported the idea of a fibroid tumour, the horribly foetid discharge and vegetating growth seemed to be against such an idea. Attempts were made to displace the tumour by raising it with the hand, but in vain, so in order to obtain a firmer hold of it a trocar was plunged into the mass, and by hard and steady pressure from before, backwards and below upwards, the urethra was at length freed from pressure. The bladder immediately emptied itself to the great relief of the patient. The next day it was decided to remove this tumour. The patient refused to have ether administered. She was placed on her back in the lithotomy position, and her legs held apart by an old woman and the husband of the patient. The blades of Pajot's short forceps were then applied to the sides of this tumour and traction was made, but the blades slipped. Three times were the blades applied in different positions, but without avail. The fourth attempt caused a laceration of the left lateral cul de sac, and Dr. Gérard found that he had entered the abdominal cavity. The forceps, however, did not slip, and after a quarter of an hour's hard pulling the tumour was brought down, followed by a long membrane. A ligature was applied 6 centimetres above the top of the tumour, and the pedicle returned into the vagina. Injections of carbolic acid solution were made, and compresses being placed on the vulva the operation was completed. The patient had lost very little blood during the operation, and made a rapid and complete recovery. An examination of the removed parts showed them to consist of the uterus, both tubes, the right and part of the left ovary, with the peritoneum from the anterior and lateral walls of the vagina. The tumour was a fibro-myoma, its lower extremity being an irregular lobulated vegetating mass, while its superior surface was formed by fundus of the uterus.

Dr. Ménière, who examined the specimen for Dr. Gérard, in his report says : ' In short, Dr. Gérard had only one object in view—to save his patient. He acted with energy and showed much boldness and skill ; his operation was a success, so all is well. But if we look at it from a purely scientific point our opinion changes, and we have no fear of advising our brethren to follow some other line of treatment if a similar case ever presents itself to them.' Both the patient and Dr. Gérard are to be congratulated on the termination of the case, which was a fortunate one, to say the least ; but we entirely agree with Dr. Ménière in hoping that in similar cases this forcible tearing away of the uterus will not be resorted to.

*Intra-uterine Medication.*¹ By Dr. CHERON.

The instrument used for uterine irrigation is like Schroeder's, perforated by three openings. It has a double curve, and its calibre is slightly less than that of a German catheter.

Having ascertained that the cervix is permeable and that there are no inflammatory symptoms, injections are made in the following manner.

The patient being placed in position, the cervix is brought into view by means of a speculum, and, if any caustic fluid is to be used, a pledget of cotton-wool, or lint soaked in glycerine, is placed in such a position as will prevent the caustic reaching the cervix or vagina. The instrument is next passed through the cervix into the uterus, care being taken that it passes easily so as to allow for an escape of the injected fluid.

An antiseptic solution is then introduced through the irrigator into the uterine cavity, picric acid being the one generally used by Dr. Cheron, and when this has all escaped, the solution which is to effect the cure is slowly injected into the uterus and allowed to escape.

¹ *Revue des Maladies des Femmes*, January 1887.

There need be no fear of any of the fluid escaping by the Fallopian tubes, provided the injection is made slowly and under a low pressure. In this way the number and duration of the operations may be increased, and the quantity of injected fluid may be raised from five to thirty grammes.

When the medicinal agent used has been nitrate of silver or chromic acid, pain will frequently follow, which, however, is not of much account, as it seldom lasts more than one day, and is relieved by a mustard plaster or some drops of laudanum.

In exceptional cases this intra-uterine injection is succeeded by severe and dangerous, or even fatal, peritonitis, but when this happens there is generally something to account for it. Thus in one case an ordinary syringe had been used ; in another case the injection had been made though it was distinctly contra-indicated.

The contra-indications are all uterine or peri-uterine inflammations, acute inflammation of the tubes and ovaries. Flexions and stenosis, especially of the internal os, contra-indicate the operation, unless some preparatory treatment be made so as to allow no retention of the injected fluid in the uterus. When all precautions have been taken intra-uterine injections may be made with the best possible results, and the dangers attending them have been exaggerated.

Dilatation of the Neck of the Uterus.

By Dr. HENRI HAMON.

In this article the puerperal state is excluded. The dilator should be elastic, and should be applied every two or three days for from fifteen to twenty-five minutes. Pressure should be gradually increased, and ought never to be so great as to cause the patient to suffer pain or the mucous membrane to bleed. In some females with very sensitive uteri a piece of cotton-wool soaked in a solution of cocaine is placed in the cervix, or if there is much hæmorrhage some hæmostatic must be applied.

The cervical canal can bear a pressure of from two to three kilogrammes without causing pain. Care must be taken not to dilate the cervix when either the uterus is inflamed or there are any traces of recent inflammatory mischief in its neighbourhood. Putting aside the cases in which dilatation of the cervix is made to explore the uterus, or for the removal of a tumour or foreign body, the author has practised this mode of dilatation for various causes.

In dysmenorrhœa, whatever its cause or whatever may be the true explanation of it, this gradual dilatation of the cervix by elastic pressure gives excellent results.

In diseases of the endo- or meso-metrium of the uterus, where there is congestion with pressure on the nerves, with sympathetic and reflex phenomena, dilatation of the canal will cause these morbid symptoms to abate.

In young women suffering from utero-ovarian irritation, whether produced by the sight of erotic objects or reading immoral literature, want of cleanliness, masturbation, or any other cause, the author recommends this treatment.

He has frequently seen uterine hæmorrhages which had lasted many months quickly stopped after the cervical canal had been dilated. He has seen a case of paraplegia following delivery cured after all other methods had failed.

Regular Menstruation in a Child twenty-three months old.

By Dr. MENGUS.

Dr. Mengus relates the case of a child twenty-three months of age, well nourished and healthy. It was brought to him on account of some bleeding from its genital organs.

On examination no lesion of any kind was found to exist, there was no foreign body, and no polypus. There was no trace of a hymen. This membrane was represented by several triangular, very evenly divided, tongues of membrane. The vagina was perfectly free, and the little finger passed easily up to the cervix uteri, which seemed unusually large for a child of this age.

This loss of blood ceased at the end of three days, to return six weeks later. It was now considered to be the catamenial flow, as there were certain signs of puberty present. The breasts had become developed, there was hair on the pubis, and the skin, which in an infant is like velvet, had changed and become like that of a girl at puberty.

The child, at three and a half years of age, is doing well. She has always been regular. She is very intelligent for her age, whilst her brother, who is a year older, presents all the characters of cretinism.

A Cure of Vaginismus. By Dr. GAUTIER.

The patient was a woman aged thirty-two years, married two and a half years. Ever since her marriage she had suffered from an affection which had prevented sexual intercourse with her husband, and for which she had consulted several medical men, who had tried various remedies without any avail.

When Dr. Gautier saw her he found the following conditions :—

Vulvar touch produced a sensation of pain, like the burning of a red-hot iron. Vaginal examination was impossible, owing to this vulvar hyperæsthesia. There was no lesion to be seen in connection with the anus or vulva. The patient informed her doctor that connection caused such great pain that she sometimes lost consciousness. The treatment adopted was the use of electricity, the negative pole of a Faradic battery being placed in the vagina, the positive being applied to the sacro-iliac articulation.

Four of these applications were made, the condition after the last being that the vulvar and vaginal examination was easy and caused no pain.

This treatment lasted about one month, during which sexual intercourse was strictly forbidden. At the end of this month the patient seemed perfectly well, and was allowed to resume cohabitation with her husband. Her subsequent health was good and the cure was complete.

Hydrastis Canadensis in Uterine Hæmorrhage.—

Dr. Tivopistzself has employed this drug in twenty cases of uterine hæmorrhage, whether from cancer or fibroids, or whatever the menorrhagia was due to. He employed, as a rule, the fluid extract, and can bear witness to its efficacy in controlling hæmorrhage in the large majority of cases. It is of special value when the hæmorrhage is due to an inflammatory, softened, or even ulcerated condition of the mucous membrane. Besides controlling the loss of blood, it is of use in those irritable conditions of the stomach which so frequently accompany diseases of the female generative organs.

Besides the fluid extract of hydrastis, there is the tincture, which, in twenty-drop doses, many prefer to the fluid extract. If it is thought desirable to give the drug in the form of a pill, there is hydrastin, the average dose of which is two grains.

Treatment of Peri-uterine Inflammation. By Dr. GALLARD.

The late Dr. Gallard advised the following mode of treatment for this affection:—

(1.) Take a warm sitz-bath every day, and make vaginal injections with a decoction of stramonium, hyoscyamus, belladonna, and poppy-heads. (2.) To the abdomen apply poultices of linseed mixed with laudanum. (3.) Open the patient's bowels once or twice a week with castor oil or sulphate of soda. (4.) At bed-time take a spoonful of the following mixture:—Hydrate of chloral, 6 grammes; gooseberry syrup, 150 grammes. (5.) Complete rest must be observed during the menstrual flow.

CANADA MEDICAL AND SURGICAL JOURNAL.

Post-partum Pelvic Abscess.

By Dr. JOHNSON ALLOWAY, of Montreal.

Dr. Alloway gives us the details of three cases of pelvic abscess following labour, one being of especial interest as it was opened by a lumbar incision in front of the quadratus

lumborum muscle. The subject was a lady who had contracted gonorrhœa two years before, and a fresh attack just previous to her confinement. Labour was tedious and the forceps had to be used. There was considerable hæmorrhage from a left lateral laceration of the cervix.

Thirteen hours after delivery, and before any vaginal injections had been employed, the patient experienced headache, rigors, and severe left-sided pain.

Vaginal examination revealed nothing beyond the laceration of the cervix. Vaginal injections were now ordered, poultices were applied to the abdomen and morphia administered. At the end of the third day the left broad ligament was found thickened, fixed, and evidently becoming filled with exudation. The uterus was fixed on the left side, the pelvic floor of that side was rigid, hot, and tender. External palpation discovered a hard tender mass in the left iliac fossa. The temperature, which is not given, was evidently over 100° F.

On the tenth day a profuse fœtid pustular discharge from the vagina took place, when the temperature descended to 100° F. and pain disappeared.

Up to the sixteenth day after labour there was a certain amount of fluctuation in the condition of the patient. On that day, besides the mass in the left iliac fossa, there were now discovered two other masses, one in the right iliac fossa, another, about the size of half an orange, situated over the anterior fibres of the latissimus dorsi muscle of the left side as they leave the crest of the ilium. This last tumour was soft and fluctuating, and was connected with the mass in the corresponding iliac fossa. An incision was accordingly made into the tumour over the iliac crest. The incision began one inch above the crest of the ilium at the edge of the erector spinæ muscle, and was carried into the abscess cavity in front of the quadratus lumborum muscle. Over two pints of extremely fœtid pus were discharged, a drainage tube inserted, and the wound dressed with sublimate jute and iodoform. As the condition of the patient was not much improved by

this incision, eleven days after it was made the abscess cavity was examined by the vagina, a probe being pushed in through an opening by the side of the laceration in the cervix. The probe passed forwards and upwards between the peritonæum and the abdominal wall. Considerable discharge followed and the patient began to convalesce. During convalescence the patient's left wrist, joint and arm became swollen and painful, and later several other joints became affected, but subsided under treatment. This attack Dr. Alloway thinks was rheumatism of gonorrhœal origin.

The attack of parametritis in this case is attributed to gonorrhœal infection, and not to traumatism, though possibly the attack may have been more easily invited owing to the laceration of the cervix.

The two other cases reported were both pelvic abscesses pointing through the abdominal wall in the right iliac fossa. Both were opened in this situation and progressed satisfactorily.

Dr. Alloway believes that in many cases these abscesses open into the vagina at the site of a laceration of the cervix, but, owing to the opening being too small to admit the free exit of pus, a collection of this matter takes place, and extends in the majority of cases towards Poupert's ligament. Experience has taught that in these cases it is better to drain through an abdominal incision, and to avoid communication with the vagina. In many of these cases of parametric abscesses no fluctuation can be obtained on bimanual examination, but its absence does not prove the tumour is solid. Abscess of this nature bursting through the abdominal walls is of extreme rarity. In a large number of cases of parametritis the origin is due to gonorrhœa, while the remainder are due to septicæmia and traumatism with effusion of blood.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Dr. Gardner exhibited several specimens:—

1. A sub-mucous polypus, removed by enucleation. The uterus was dilated, the capsule of the polypus was slit up, the tumour grasped with a vulsellum and dragged from its bed. The cavity left was douched with hot water, and iodine freely applied. There was no drainage made. Recovery.

2. Cystic tumour of labium. This was of five years' growth and the size of a hen's egg. It was enucleated.

3. Extirpation of cancerous uterus. The patient was aged 49 years. All the symptoms of malignant disease were present. Removal was performed by the vaginal method, the uterus being drawn down. After incising the vaginal mucous membrane round the cervix, the base of each broad ligament was ligatured. Next the bladder was separated, and the uterus retroverted through the posterior cul de sac. The upper part of the broad ligaments was next clamped with Terrier's clamps and the amputation completed. A T-shaped drainage-tube was placed in Douglas's pouch. The clamp forceps were removed on the third day and the drainage-tube next day. Recovery rapid and complete.

4. Two cases of ovarian cystoma. In one there were adhesions and hæmorrhage from a rent in the broad ligament, and a drainage-tube was inserted. Recovery in both was rapid and complete.

DISCUSSION.

Dr. Trenholme, referring to extirpation of the uterus, said he ligatured the broad ligaments, then retroverted the uterus and removed it piece by piece, at the same time separating the anterior wall from the bladder by the finger. He has lost faith in this operation as the disease has returned.

Dr. Kennedy thought cutting the posterior cul de sac shortened the operation and that Terrier's clamp simplified it.

At a meeting of the same Society, November 5, 1886:—

Dr. Shepherd showed a kidney with tubercular pyelitis;

also a large calculus, extracted from the pelvis of the kidney. Weight of calculus 4 oz. 7 dr.

Dr. Kennedy exhibited the tubes and ovaries removed from a patient in the Western Hospital who had suffered from severe dysmenorrhœa and menorrhagia. For a long time past various remedies had been tried in vain.

In the February number of this Journal is a case of 'Fœtal heart sounds propagated through the breech,' by Dr. J. C. Cameron. The patient was a primipara at full term. The fœtal head was presenting in the second position. The fœtal heart sounds were heard most distinctly midway between the right anterior superior spinous process and the umbilicus at the rate of 136 to 144 per minute.

Above and to the left of the umbilicus the fœtal heart sounds were also audible and occupied the site of the fœtal breech, which could be felt in that position. Notwithstanding the double heart sounds there was only one fœtus. The heart sounds heard at the breech were about eight per minute less than those heard in the right iliac region. Dr. Cameron explains the propagation of the fœtal heart sounds through the breech by the position of the child. Its left side was in close proximity to the mother's abdominal walls, and in addition to being heard in the usual position the sounds were propagated through the breech to the fundus, high up on the left side. It would be interesting to know if a second heart sound in a similar position is heard in all cases of right occipito anterior vertex presentations.

Dr. Alloway in the same number of the Journal reports a few cases that have come under his care in the gynæcological department of the Montreal dispensary.

CASE I.

C. D., aged 44, married twenty-two years. Has had five children and four miscarriages. Complains of headache, facial neuralgia, frequent micturition, constipation, metrorrhagia, with pain in sides and back, intermenstrual leucorrhœa. The metrorrhagia and menorrhagia have lasted some years.

Vaginal examination showed that the uterus was enlarged, the cervix hypertrophied, the intra-vaginal portion measuring two inches in length, and one inch and a half across at external os. It is the seat of cystic growths. There has been an old laceration which had cicatrised. A modification of Hegar's operation of exsection of a portion of the cervix was performed after the interior of the uterus had been curetted. The sutures used were silkworm gut instead of wire. The patient made a good recovery.

Dr. Alloway is of opinion that in these cases of hypertrophied cervix with long standing laceration better results are obtained by adopting Hegar's operation of exsection than Emmet's operation for lacerated cervix.

CASE II.

The patient had been confined fourteen days before. All had gone well until the tenth day, when the patient complained of chills, headache, loss of appetite, and intense prostration. Her symptoms seemed to point to some pelvic mischief.

Vaginal examination showed that the cervix was small, neither lacerated nor eroded, and apparently well involuted. The anterior lip of the cervix was caught by a tenaculum, and the cervix drawn down. As this was done a quantity of foetid greenish-coloured pus escaped from the os. The uterus was accordingly washed out with a sublimate solution of 1 in 2,000 until the return fluid was clear. The left forefinger was passed into the uterus. At the internal os there was a distinct ridge. The uterus was anteflexed. On passing the finger further into the uterine cavity two small elevated masses were felt at the fundus in the anterior wall. These were removed, and the uterine cavity was subsequently irrigated with a sublimate solution and the cavity filled with iodoform and boric acid suppositories. The temperature fell in twelve hours and the patient soon became convalescent.

It is interesting to note that in this case the two small retained placental masses in their breaking-down process had been unable to find any exit from the uterine cavity, owing to

the projecting ridge at the internal os which acted as a valve. This band, together with the anteflexion, were undoubtedly the cause of retention of pus, and conversion of the uterus into a veritable abscess.

The remaining cases reported by Dr. Alloway are cases of retention of decidua or placenta with symptoms of septicæmia or metrorrhagia. The curette was used in all with very satisfactory results.

TORONTO MEDICAL SOCIETY.

Dr. Temple showed the uterine appendages of a patient. She had been married eleven years, was never pregnant, and began to suffer one year after marriage. She had gradually been becoming a great invalid, and during the last year was almost constantly confined to bed. She had lately suffered from circumscribed peritonitis. The abdomen was enlarged to about the size of a fifth months' pregnancy. On examination the uterus was high up. Behind the cervix was a fluctuating mass. The dilated right tube could be easily mapped out on bimanual examination. On opening the abdomen there were many adhesions which were separated. The right tube burst during its removal, about 8 oz. of pus escaping into the peritoneum. The left tube was also dilated and removed, but the left ovary could not be found, it probably having become absorbed owing to pressure. Both tubes were filled with pus, especially the right one. The patient made an excellent recovery.

Dr. Ross exhibited the placenta from a case of twin pregnancy, in which the cords were attached to the placenta very close together, and were very much twisted and knotted. Both fœtuses were dead. One was hydrocephalic, and, in order to deliver it, the head had to be punctured to allow the escape of the fluid.

The Perineum as a Supporting Structure.¹—Dr. C. D. Palmer, in *South. Clinic.*, discusses the question, To what extent is the perineum a supporting structure?

¹ *American Archives of Gynecology.* December 1886.

This is still a mooted question, though within recent years there has been a tendency to discard the originally received idea of the perineum being a direct supporting body.

The question might well be asked, Why do we so frequently have great and serious displacements of the generative organs when the perineum proper has suffered little or no injury?

The conclusions arrived at are that: (1) As the perineum is made up of muscular and other tissues, entering into the lower structure of the floor of the pelvis, it follows that lacerations of it do impair, both directly and indirectly, the forces which sustain the vagina and, through this organ, the bladder and rectum; (2) perineal lacerations, even complete ones, may occur, and not be followed by displacements; (3) perineal lacerations do not produce uterine displacements directly; (4) uterine displacements to a great extent, and vaginal displacements to a considerable though less degree, are due to a weakening of the pelvic floor by injuries sustained chiefly during parturition, but aggravated by causes operative afterwards.

The Uterine Sound.¹—In an article strongly condemning the uterine sound in gynæcological practice, Dr. Potter has given us his views and opinion on that instrument.

After shortly reviewing its history, he proceeds to give some of the accidents which may arise from its use, especially when too frequently or unskilfully employed. For many years the instrument has held sway, and it is only recently that it is beginning to give way to safe and quite as sure methods of diagnosis. It is among the young and less experienced physicians that its use is more frequent; their fingertips have not yet acquired that *tactus eruditus* so necessary and so valuable in gynæcology, and which enables a more skilful and experienced physician to discard the use of the uterine sound almost entirely. He proceeds to warn all young specialists to be exceedingly careful in using it, and to try to exclude it from among their armamentaria. It is from

¹ *American Archives of Gynæcology.* December 1886.

bitter experience that he warns them, as he has frequently seen, even in his own practice, serious results follow the use of this formerly much vaunted instrument.

He has given up its use entirely, except as a final diagnostic resort in a juncture of extreme doubt, and now can, by the use of the finger alone, diagnose various unhealthy conditions of the vagina, cervix, uterus, tubes, or ovaries. Frequently has he seen metritis, salpingitis, ovaritis, pelvic cellulitis, and other morbid states set up by the use of this instrument. Many a woman who, before its use, was suffering from some slight ailment, has, after its use, been almost entirely disabled, owing to some inflammatory condition brought about entirely by the sound.

In displacements of the uterus it should never be used, as these conditions can all be set right by other safer means, as by employing the genu-pectoral positions, especially in retroflexions or versions.

In conclusion, he earnestly appeals to the medical profession to train their finger-tips, and use them in place of the sound, which he is positive is productive of more harm than good, and in this way to get rid of an opprobrium which the art of gynæcology is at present compelled to suffer.

Diseases of the Endometrium.¹—In an article entitled 'Diseases of the Endometrium,' by Dr. Taliaferro, the application of intra-uterine tampons is advocated.

The author has, for many years, followed this method with the happiest results, and two cases are given, which are said to be two of the most obstinate and lengthy cases.

The patient, who is suffering from disease of the endometrium, is placed in the genu-pectoral position, the anterior lip of the uterus is drawn down by a tenaculum, and strands of medicated cotton-wool are tightly packed into the uterus, so as to completely fill its cavity from fundus to the os uteri externum. The patient is then confined to bed for a few hours, and then allowed to go about her ordinary avocations. If there is much pain the cotton-wool is withdrawn; if not,

¹ *American Archives of Gynæcology.* December 1886.

it is left in position for two days, when fresh cotton-wool is introduced. When there is simple mucous inflammation and tenderness the wool will be expelled by uterine contractions in about twelve hours. By this method of treatment the author claims to have very successful results.

Uterine Cancer, the Early Diagnosis of.¹—Professor Palmer, of Cincinnati, gives his views on this subject.

Cancer of the uterus is very frequent, and owing to improved methods of diagnosis its frequency is increasing.

Cancerous growths arise either from a degeneration of the connective tissue cells under the mucous membrane on the vaginal surface of the cervix or within the cervical canal, though epithelioma probably first begins in the superficial epithelium.

When the cancerous affection begins in the connective tissue elements the vascularity of the part is at once increased, and it has a reddish or bluish appearance. Nodules are produced, and the surrounding mucous membrane becomes fixed.

The disease may creep on very slowly and insidiously, so as to give rise to no suspicion of malignancy. An early diagnosis could, as a rule, be made, if the progress of the case be carefully watched. Local mischief will improve under well-directed treatment, but if due to malignancy the improvement will be very slight, if any, and will not be permanent; on the contrary, the patients progressively get worse. The microscope will at an early date reveal the character of the disease, and should be always employed where there is the least suspicion of malignant growth. He gives it as his opinion that 'Epitheliomatous degeneration is more likely to ensue in cases of cervical laceration in which the torn surfaces never cicatrize.' Topical applications of glycerite of tannin, alum, and boracic acid are useful means of diagnosis.

Causes of Sterility.²—In this Journal is an editorial note on this subject. In the opinion of the author sterility

¹ *American Archives of Gynecology.* December 1886.

² *Ibid.*

depends on three conditions: (1) Inefficient ovulation; (2) prevention of the fructifying contact between spermatozoa and ovule; (3) inability of the uterus to secure the development of the ovule.

The average proportion of sterile to fertile marriages is from 12 to 15 per cent. The author thinks that if a woman has not borne a child within three years after her marriage she may be considered sterile. Account must be taken of those married people who are wilfully sterile. During the act of coition there is a free secretion of alkaline mucus which promotes the activity of the spermatozoa, and enables them to pass more easily into the uterine cavity. The uterus probably descends in the pelvis, the cervix becomes rounded, the os uteri and Fallopian tubes dilate, and the semen is drawn into the uterine cavity.

Many causes of sterility are tabulated, as conical cervix, uterine displacements, gonorrhœal or other inflammation of the uterus or tubes, urinary fistulæ, malformations of the genital tract, masturbation, &c.

Alterations in the vaginal and uterine secretions are liable to destroy the spermatozoa and prevent the ovule becoming fecundated.

An analysis of 3,127 cases shows the part played by the following morbid conditions in the causation of sterility:—

Uterine, peri-uterine, and ovarian inflammation, 40 per cent.

Uterine displacements, 40 per cent.

Vaginitis (including gonorrhœa), 2·6 per cent.

Vaginismus and atresia vaginæ, 1 per cent.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Pneumonic Fever in Pregnant Females. By Dr. WELLS.

Dr. Wells gives us in this paper the records of 9 cases of pneumonia complicating pregnancy.

Of the 9 cases, 8 recovered and 1 died.

In eight of the cases pneumonia attacked the base of the

lung, most frequently the right, while in one only was the upper lobe affected.

‘Jürgensen considers pregnant females as being less liable to attacks of pneumonic fever than other classes of the population. Of 2,475 female pneumonic patients treated in the Vienna General Hospital only 43 were pregnant.’ From this number must be taken 611 who were over 50 years of age, and 24 who were under 15 years of age, these being supposed to be outside the limit of pregnancy. ‘There remain 1,824 of child-bearing age, of whom 43, or 2·3, were pregnant. Of these 43, 25 aborted, and of these 25, 7 died—a mortality of 28 per cent.’

Of 456 pneumonic patients under Dr. Mills 94 were married females of child-bearing age, and of these 11 were pregnant. In four of these cases pregnancy had advanced from one to three months, and in seven cases from six to nine months. Of these eleven cases none of the first class aborted; and of the second class, one aborted at six months, two at eight months miscarried, and in one case labour was induced either at or very near full term. The remaining seven went to full term. All the children were born alive, but all, except the one delivered at or near full term, died shortly after delivery.

Dr. Wells believes that pneumonia is met with in pregnant females in as large a proportion as amongst the non-pregnant, and cannot agree with Jürgensen’s opinion as expressed above. In Dr. Wells’ cases the fever has not run such a rapid and acute course as it is generally said to pursue in the pregnant female.

He is inclined to believe that before quickening abortion will rarely occur, but after this premature labour will take place in most cases.

Gusserow and Ringe, after careful study and experiments, concluded that the increase in the body heat is the one exciting cause of premature labour in females suffering from acute infective diseases. Matthews Duncan believes that some interference of the respiratory function by pregnancy and

pneumonia may bring on premature labour. While discarding altogether this last view, he agrees with Gusserow and Ringe that a high temperature may be one of the many causes of premature labour, though it is not by any means the only cause.

Puerperal Mastitis. By Dr. MURPHY.

In the same paper a new method of treating puerperal mastitis by the application to the affected breast of spirits of turpentine, is brought under our notice. In place of the means hitherto generally adopted to prevent this painful and troublesome disease, aperients, strappings, belladonna, &c., Dr. Murphy recommends the use of spirits of turpentine applied in the following way: 'Upon the discovery of a drawing pain upon suckling, or a tender hard spot in any part of the gland, bathe the part with spirits of turpentine, and then cover it with a cloth, rag, or piece of flannel saturated with the same.'

In two or three days the hardness, the tenderness, and all other uneasiness attending this troublesome affection, will have, as a rule, disappeared. Thirteen cases of puerperal mastitis are recorded, all of which were treated by the above method, and include mastitis following abortion, premature labour, and delivery at full term.

The turpentine applications were made from once to three times a day, according to the severity of the inflammation. All hardness and induration were generally soon reduced, and the gland restored to its natural consistence. The secretion of milk is generally checked, but if the secretion continues the child should be nursed from the affected breast, but not as frequently as from the healthy one, and care must be taken to remove all traces of turpentine from the part.

Dr. Murphy's agent certainly deserves a fair trial, for if the treatment in its future results is as successful as Dr. Murphy would have us believe, the *bête-noire* of the lying-in hospital will be done away with, and many women relieved

from much pain and suffering, especially if, as we are told, 'no severe smarting or vesication of the skin occurred,' but instead 'a general sense of comfort and relief' is experienced from its application.

GYNÆCOLOGICAL SOCIETY OF BOSTON.

OCTOBER 14, 1886.

Dr. Cushing presented a mass of hypertrophic recurrent glandular tissue removed from the fundus uteri. The mass filled a four-ounce measure, and was recurrent the fourth time. Attention was called to the practical malignity of such growths.

Dr. Cushing also exhibited an ovarian cyst. It had been diagnosed as a pregnancy by another practitioner. The tumour was multilocular, and with difficulty removed through a small opening. He thought it bad surgery to remove a tumour through an opening too small for comfort.

Dr. Symington Brown read an article on the 'Rôle of the Ovary.' The writer thinks more is to be learned by carefully observing normal physiological processes, and making guarded deductions therefrom, than from pathological observations.

The changes which the ovary undergoes at each menstrual period may be called the cycles of involution and evolution. The ovary is in intimate relation with other glands, a relationship most marked during pregnancy.

The author agrees with Dr. Noeggerath that latent gonorrhœa plays a very important part in disease of the tubes and ovaries, producing as it does thickening of the fibrous sheath of the ovary, closing and filling the tubes with pus or muco-pus, and probably preventing the proper development of the ova. Sterility is the inevitable result.

Removal of the ovaries for metrorrhagia, salpingitis, and intractable dysmenorrhœa was touched upon. Dr. Brown is of opinion that these operations do not unsex the patients. Insanity in women frequently depends on sexual disorders,

and can be cured by local treatment. Battey's operation in hystero-epilepsy is perfectly justifiable.

Sterility following sudden arrest of menstruation may be due to closure of the fimbriated end of a Fallopian tube by a low-grade inflammation, or to arrest of development of ova due to nervous shock.

When menstruation persists after removal of the uterine appendages, it may be owing to the existence of a third ovary, or of single ovisacs in the same parovarium, though it may also be due to the persistence of the original menstrual impetus. The sex of the fœtus does not depend on the particular ovary which furnishes the germ.

Dr. Cushing thanked Dr. Brown for his valuable paper. He agreed with him in regarding a latent gonorrhœa or gleet as an agent in producing disease of the appendages. In all cases the gonococcus can be found. He believed that most of the inflammatory affections in women arose from gonorrhœa.

Dr. Warner did not believe that gonorrhœa or gleet, when latent, was the cause of all the troubles assigned to it, nor did he think Noeggerath's views on the subject were generally accepted by the medical profession.

AMERICAN MEDICAL ASSOCIATION.

January, 1887.

At the meeting of the Obstetric Society of Philadelphia Dr. Goodell exhibited the right broad ligament, containing an enlarged ovary, and close to it, but quite distinct from it, a fibroid tumour.

The left ovary was also enlarged, and contained a cyst which burst into the abdominal cavity four days before the operation. The symptoms were painful locomotion, menorrhagia, and metrorrhagia, with a fixed retroverted uterus.

The same gentleman also exhibited an intra-ligamentous ovarian cyst removed from a girl aged 18 years. Her abdo-

men had been slowly increasing in size for the last two years, and within the last few months she had begun to ail.

The cyst lay between the folds of the right broad ligament, and was adherent to the intestines and abdominal walls. The Fallopian tubes were thickened, dilated, and filled with pus.

The left ovary was enlarged and contained pus. It was removed, and the case rapidly recovered. Another somewhat similar case was narrated by Dr. Goodell as occurring in his practice.

DISCUSSION.

Dr. Taylor remarked that the last case related by Dr. Goodell had been under his care. Nine months before the operation the patient had a miscarriage with some placental retention. It was followed by ovarian tenderness and inflammation.

Dr. Montgomery thought there was a resemblance between the tumour related in the first case and one horn of a uterus bicornis. He wished to know whether there was a distinct separation between the uterus and tumour.

Dr. Goodell, in reply, said the tumour was separated by about an inch from the uterus.

Dr. Kelly exhibited a parovarian cyst weighing 37 lbs. The patient had noticed a year before that her abdomen was enlarging. There was flatness of the anterior abdominal wall, with bulging in the flanks. The incision made extended $2\frac{1}{2}$ inches. There were no adhesions. The fluid that escaped from the tumour was viscid and yellowish. The cyst was one large cavity containing some cauliflower vegetation inside. The ovary lay intact on its outer wall, and the tube, about 10 inches in length, was drawn over it.

The same gentleman also read a communication on removal of the ovaries and tubes for subinvolution and chronic metritis.

The patient, aged 35 years, was a multipara. For a long time before consulting Dr. Kelly she had been under a skilful and experienced physician. She had also been carefully

treated for some time by Dr. Kelly, but without any permanent improvement.

He accordingly removed the ovaries and tubes through an incision 2 inches long. The ovaries were full of enlarged follicles, and covered by a dense capsule.

He thought the removal of the uterine appendages in these cases was perfectly justifiable, and as the proceeding was new he would make a further communication to the Society on the subject.

Dr. Meigs Wilson thought oöphorectomy for metritis a proceeding of doubtful propriety. He doubts the moral right of exposing the patient to all the risks of abdominal section for such a condition.

Dr. Joseph Price read a report on thirty-one cases of intra-abdominal operations made by Dr. Sutton. The operations included, besides ovariectomies, removal of the uterus, removal of the uterine appendages, resection of small intestines for cure of artificial anus, &c.

The cases were not in the least selected, but were operated on as they came to the hospital. No spray or other chemical has been used during the operations. The wound has been dressed with iodoform gauze. Cleanliness in every way was strictly carried out.

Of the thirty-two operations, nine were fatal, but the deaths were not in all cases due to the operation; thus in one case where both ovaries and tubes had been removed the patient died on the fifteenth day from typhoid fever. Another developed tetanus and died, while a third lived some months and subsequently died of peri-nephritic abscess. Of the patients who underwent ovariectomy eight have borne children since.

DISCUSSION.

Dr. Kelly thought the fact that some of his ovariectomy patients had afterwards become mothers was interesting. He had made some statistics founded upon 1,000 cases of ovariectomy in Sir Spencer Wells' table, which showed that of 351

women from whom only one ovary had been removed, and who were within the child-bearing limit, there had resulted 228 children since the operation. In the case said to have died of typhoid fever, Dr. Kelly could not accept it as the cause of death. The typhoid condition is common in all those cases tending to die, while true typhoid fever is exceptionally rare.

Dr. Coffee related a case in his own practice where typhoid fever followed close upon a surgical operation.

Dr. M. Price knew of a case of typhoid fever following immediately after small-pox.

Exploratory Incision as a dernier ressort for Diagnostic Purposes. By Dr. R. STAINSBURY SUTTON.¹

As many cases of obscure abdominal affections will from time to time present themselves in which a diagnosis is not possible, and as something ought to be done to ascertain the condition, Dr. Sutton is of opinion that, 'in every man or woman dying or in danger of dying from an obscure intra-abdominal trouble an exploratory incision should be made, and the diagnosis should, if possible, through it, by touch, or by touch and vision, be perfected.' The precautions to be followed are:—

1. Perfect cleanliness of the patient's abdomen.
2. Perfect cleanliness on the part of the operator.
3. Perfect cleanliness of the instruments.
4. The patient must be thoroughly anæsthetised.
5. Make a small abdominal incision, and secure every bleeding point before opening the peritoneum.
6. Carefully open the peritoneum, pass two fingers through into the abdominal cavity and search for information. If you fail to obtain the desired information, enlarge the abdominal wound in an upward direction, and search again.
7. Make a careful peritoneal toilet. If necessary, pour in clean warm water, and sponge it all out. Close the wound

¹ *American Medical Association Journal.* January 1887.

by passing sutures over a flat sponge laid beneath the wound.

8. Never use carbolic acid or the sublimate solution ; it is useless and dangerous, unless it is merely used for the purpose of cleaning the operator's hands.

9. Only the operator is to put his hand into the abdominal cavity.

10. In tying the sutures, dry the lips of the wound with iodoform gauze.

Such are the precautions to be taken in making an exploratory incision, which if carried out will never be followed by any bad results.

A Case of Ante-partum Hæmorrhage at Term.—

Dr. Parks read the notes and progress of this case before the Chicago Medical Society in January, 1887. The patient was a married woman, aged 37 years, who had advanced to full term in her ninth pregnancy. She had had six miscarriages, none of which she could account for. There was no history or trace of syphilis. A few evenings before Dr. Parks was called to attend her, she had met with an accident which gave her a slight momentary shock, but nothing more. Slight hæmorrhage followed, but was soon stopped on her calling in a doctor. On examining the patient the respiration and temperature were normal, the pulse regular, volume and strength good. The os uteri was firm and rigid ; there was no dilatation. She complained of a few slight pains which were thought not to be true labour pains. Some hours later, however, when called in again, Dr. Parks found her suffering from true labour pains, with the os soft and dilating. Labour went on slowly, and seemed likely to terminate shortly, when the propulsive pains ceased, there was great pain over the fundus uteri ; the patient complained of great thirst ; she became restless ; the face was blanched ; the pulse feeble, rapid, and easily compressible. It was evident that labour must be brought to a conclusion as soon as possible. The membranes were therefore ruptured, the forceps applied, and a stillborn child extracted. The placenta was removed with

the left hand. Ergot and stimulants administered, and the patient made a quick and uninterrupted recovery.

Dr. Parks thinks the hæmorrhage was from a partial separation of a normally situated placenta. The head of the fœtus acted as a ball-valve, and prevented the escape of blood externally. There was a rupture of the membranes high up, which allowed blood to flow into the amniotic cavity. In these cases of accidental hæmorrhage the prognosis for the child is bad, unless labour be very speedily terminated by art. The prognosis for the mother is almost worse than in placenta prævia.

OBSTETRICAL SOCIETY OF EDINBURGH.

WEDNESDAY, DECEMBER 8, 1886.

Absence of Uterus and Vagina.—Dr. James Young showed a young woman whose case presented some unusual conditions of interest. She complained of great weakness of the left side, so much so that she could not maintain the erect posture. On examination of the thoracic walls he discovered the complete absence of the ninth rib on the left side, with slight lateral curvature of the dorsal vertebræ. On coughing there could be observed a large hernial protrusion between the eighth and tenth ribs, especially posteriorly. It was ascertained that the patient had never menstruated. A digital examination revealed the existence of a dense imperforated hymen. This, taken in connection with her age, as well as the existence of well-developed mammæ, with large nipples, led us to make still further exploration. The result proved the entire absence of all the uterine organs and vagina. The bladder and rectum were normal, while the external appearance of the genitals presented every indication of womanhood.

Foliaceous Fœtus.—Dr. Leith Napier exhibited a specimen of the kind. The points of interest in the case were, that both the fœtus shown and the mature, healthy, living fœtus were confined in one amniotic sac. No trace of pla-

central connection existed between the atrophied foetus and the placenta, except a certain thickening of the amnion near the foetus, which might probably have been the remains of a separate imperfectly formed placenta. Pressure may have caused absorption of the chorion, and the foetus would in this way perish. In the placenta and membranes shown there was no sign of disease or insufficient development, so that the case bore out Guillemot's contention, that death in these cases was explained by pressure and not by primary placental disease or detachment. The foetus was matured to about two and a half to three months.

Twenty-two consecutive cases of Abdominal Section.

—The President (Dr. J. Halliday Croom) read notes of this series of abdominal sections, comprising practically the work of fifteen months. The series included eighteen cases of ovariectomy and removal of uterine appendages, one case of laparotomy for purulent peritonitis, the result of hæmatocoele, two cases of exploratory incision, and one case of hysterectomy.

In Case V., ovariectomy, the tumour was removed when the patient was suffering from acute peritonitis, the temperature at the time of the operation being 103° . The operation was prolonged and difficult, lasting over two hours, owing to the amount of recent vascular adhesions. When removed from the table her condition was critical; she gradually, however, rallied. Two weeks after the operation, she developed a well-marked phlegmasia in the left leg, which protracted her recovery very considerably.

Case XVIII.—Ovariectomy. The diagnosis presented great difficulty. On opening the abdomen the tumour was found to be a semi-solid ovarian cyst of the right ovary, fixed in all directions by recent peritonic adhesions. The pedicle was very short and friable. The intestines were entirely at the upper part of the abdomen, and did not, as in ordinary cases, descend. There was thus left a space, extending from midway between the xiphoid cartilage and the umbilicus to the pelvic brim, entirely empty. The wound was closed in

the usual way. The temperature did not for four days rise above 102° . On the morning of the second day there was slight dulness in the left flank. On the fourth day the abdomen was distended and dull all over, the temperature running up to $104^{\circ}.5$. The abdomen was then opened afresh, and several pints of sero-sanguineous fluid withdrawn. The following morning the temperature was normal. A drainage-tube was introduced, and she had since been washed out daily by Dr. Foulis's catheter arrangement. For the first week about a teacupful of pus was washed out daily. The cavity is rapidly closing. The case illustrates the advantage of draining in special cases.

There were seven cases of removal of the uterine appendages, and in each instance the operation was not one of choice but of necessity. Two were cases of hæmato-salpinx, two bleeding fibroids, and a bleeding uterus, and in two it was performed, the patients being sufferers for five and twelve years respectively, at their own urgent request. With regard to the fibroids, the first was the size of a cricket-ball; the second the size of a foetal head. In both cases the operation was uncomplicated, and in both the result entirely satisfactory. Both cases have menstruated since, but the hæmorrhage has been slight and painless.

A great deal is constantly being said about the loss of sexual appetite. Dr. Halliday Croom remarks, 'That is a matter I did not inquire into. It was no business of mine. If they have lost their sexual appetite, I am surprised; for in their enfeebled condition I should scarcely have expected that any existed. But still if it did it is no affair of mine, any more than it is the business of a surgeon to inquire into the sexual appetite of his patient after removal of the testicle. The removal of the ovaries and tubes were necessities, and therefore, as a practical man, I have nothing to do with what becomes of the sexual appetite. In cases where there is any doubt as to the propriety of the operation, this may be an element, but in the present cases, which were undertaken of necessity, no such question presented itself.'

Case IX. was typical as an illustration of gonorrhœal

infection. She had been married for twelve years, and contracted gonorrhœa shortly after her marriage ; ever since she had been a constant sufferer ; sterility, with dysmenorrhœa, and inability to perform her marital function. Per vaginam, the uterus, ovaries, and tubes were matted in one solid mass. Bimanually, under chloroform, the uterus could be felt lying forward, fixed firmly on either side by two solid lumps occupying each broad ligament. The ovary and tube on the left side were removed with difficulty. The ovary was enlarged and cystic, and the tube much thickened and containing pus. The right tube was also removed after much trouble. It was acutely inflamed, and thickened. The corresponding ovary was small, and so firmly adherent it could not be removed. The operation was not difficult, the roof of the pelvis being completely closed in by adhesions. The patient got immediate and continuous relief. Menstruation has been regular ever since, but without pain or distress.

Case XX.—Had observed the tumour growing for six months. It appeared to be a simple, uncomplicated ovarian tumour with thick walls. On opening the abdomen the hand passed round the tumour and felt it free of adhesions. The surface of the tumour had all the appearance of an ovarian cyst. No fluid flowed through the aspirator. An incision was therefore made in the tumour, and at once several coils of intestine slipped through the opening. With much difficulty these were replaced and the wound closed. The patient recovered. Two years later the patient was brought to St. Luke's Home presenting a most remarkable appearance. She had her abdomen distended with a solid tumour of such dimensions that the woman herself seemed but an appendage to the tumour. When she sat down on a chair the abdominal wall touched the floor. She was emaciated to a skeleton. She lived in great distress a year longer, and died of exhaustion. Post-mortem examination showed the tumour was neither uterine nor ovarian, but developed from the thickened omentum which had been opened three years previously.

WEDNESDAY, JANUARY 12, 1887.

Exomphalic Fœtus.—Professor Simpson exhibited this specimen, which was borne by a primiparous patient in the Maternity Hospital.

M. S., primipara, aged 21, was admitted on January 1, 1887. Patient was a strongly-built, healthy-looking woman. During pregnancy her health was excellent. The date of last menstruation was doubtful, but occurred some time in June or July. She thought herself at about the seventh month of pregnancy; fœtal movement had been missed for several days. On examination she was seen evidently to be in the second stage of labour. Palpation gave doubtful results. The fœtal heart could not be heard. On vaginal examination the cervix was found nearly fully dilated, the membranes ruptured, and the left arm and an unusual mass presenting with it. Further palpation showed the position to be transverse—left acromio-posterior. As strong uterine contractions were present, turning was performed at once, but with difficulty. The fœtus was laterally flexed, so that the last ribs were in the pelvic axis, the left arm and the mass referred to (afterwards seen to be the abdominal contents) presented, the head and right arm were on the left side of the uterus, and the pelvis and lower extremities, fully extended, on the right side. After much trouble a knee was reached and turning accomplished. The further progress was easy. The placenta was expelled with the fœtus. The cord was very short. The whole abdominal contents were outside the body. The sex was female. The body, &c., readily assumed the position above described as that in utero. Four years ago he (Professor Simpson) had shown a similar preparation, and in relating the history of the labour had called attention to some peculiarities in connection with it, which were all confirmed by this new case:—1st. The labour was premature. 2nd. The attitude of the infant was peculiar. Instead of the usual anterior incurvation, we had the trunk curved backwards

and to the right side, so that the clubbed feet of the fœtus were close to the right side of the occiput. 3rd. There was a malpresentation. Instead of the head, the ventral mass with the left shoulder and side of the thorax were felt through the os. Out of fifteen such cases, therefore, of exomphalos, presentation of the abdomen had been met with in thirteen. 4th. The delivery had to be effected artificially, by introducing the hand and laying hold of one of the lower limbs.

CLINICAL AND PATHOLOGICAL REPORTS.

CONGENITAL SACRAL TUMOURS, ESPECIALLY THE VARIETY KNOWN AS PARASITIC FÆTUSES, AND THOSE CONNECTED WITH THE NEURENTERIC CANAL.¹ By J. BLAND SUTTON, F.R.C.S. Eng., Assistant-Surgeon to the Middlesex Hospital, Erasmus Wilson Lecturer on Pathology.

THE immediate neighbourhood of the sacrum and coccyx is famous as being the favourite situation for congenital tumours to occur of very remarkable characters. The tumours may be cystic, and arise from dilatation of the spinal meninges—spina bifida; they may be due to an abnormal growth and distension of the post-anal gut, or the tumour is a suppressed embryo, familiarly known as a parasitic foetus.

Braune, who was the first to give a clear explanation of the cases which arise in connection with the spinal membranes, regarded the second variety as being due to sarcomatous degeneration of Luschke's gland. In this opinion he has been supported by certain high authorities in this country, among whom may be mentioned Jonathan Hutchinson and Wagstaffe. In my lectures at the Royal College of Surgeons last February, I ventured to challenge the correctness of this view, and endeavoured to show that those tumours which lie anterior to the coccyx and sacrum had their origin in the portion of the alimentary canal which lies behind the anus, known as the post-anal gut. A good and easily accessible specimen of this variety of tumour is preserved in the museum of the Royal College of Surgeons. It is described by Mr. Shattock in the *Trans. Path. Soc. of London*, and a drawing of the parts is given below (fig. 1). Microscopically the cysts and duct-like passages were lined for the most part with cubical epithelium, and held together by richly cellular connective tissue. In many situations the epithelium is columnar, set upon

¹ This formed a part of the second Erasmus Wilson lecture delivered at the Royal College of Surgeons on February 2, 1887.

flatter cubical cells. The cysts contained rosy mucus ; hyaline cartilage was also found in the tumour.

The structural details of this tumour harmonise with those of the post-anal gut and with Luschke's gland. During the past summer, having devoted such leisure one could steal from the ordinary routine of professional work, I have succeeded in satisfying myself that the coccygeal body is the degenerate representative of the post-anal prolongation of the alimentary canal in the foetus. The extent to which the fibrous cord runs from the gland along the anterior face of the sacrum differs very much. The relation of this cord to the coccygeal body is represented in fig. 2.

The above observation really reconciles the views which would regard those sacral tumours situated anteriorly to the coccyx as arising either in the post-anal gut or coccygeal gland. We must now consider the third group.

Parasitic foetuses may vary from a shapeless mass of variable proportions to a more or less fully formed individual. In some cases the attached mass takes the form of a supernumerary limb ; if in the sacral region, it may be a leg, or two legs fused into one ; if in the neck, it is an additional arm or arms.

Such conditions are by no means confined to human beings, but are general throughout the whole animal kingdom ; and this is an important matter, because it is in itself a sure indication that some law, or system of laws, underlies these abnormalities. Before entering into the ætiology of parasitic foetuses it will be necessary to illustrate the various degrees of the malformation by some typical examples taken from man and the lower animals.

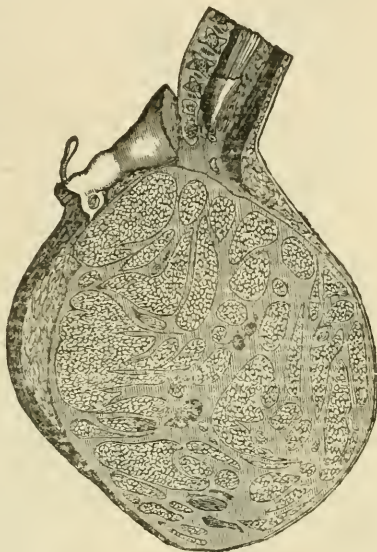


FIG. 1.—A coccygeal tumour originating in the post-anal gut. (After Shattock, *Path. Soc. Trans.*)



FIG. 2.—The coccygeal body (Luschke's gland) and its fibrous pedicle.

Double foetuses may vary within wide limits ; thus in fig. 3 two are united only by a narrow band in the sacral region, each possessing separate organs, simply being bound together. In other examples the foetuses are fused throughout the whole length of the trunk, but are double headed and possess duplicate limbs. Between these two extremes every variety may be met. Two perfect individuals thus united may vary in size considerably, and illustrative specimens may be found in most pathological collections of any pretensions, showing the condition in cats, dogs, birds, and man.



FIG. 3.—An outline sketch showing two foetuses fused at the sacrum.

In the second group of cases the parasitic foetus is represented by a supernumerary limb, or two limbs more or less fused. This variety



FIG. 4.—A lamb with two partially fused supernumerary hind limbs attached to the pelvis. (After Gwilt.)

is less frequent than the preceding, but occurs in many animals. In the case of the lamb represented in fig. 4, two fused hind limbs are shown projecting from the buttock, but on dissection they present femora, tibiae, fibulae, tarsals, metatarsals, and phalanges exactly as in a normal, except that they are blended at their proximal segments.

One of the most extraordinary instances of this malformation is that of Jean Battista des Santos, of Faro, in Portugal. This man had two supernumerary legs fused together and projecting between the normal limbs. He also had perfectly two distinct penes. An account of this case when an infant was published in the *Medico-Chir. Trans.*

At the age of 19 he was carefully reported upon by Ernest Hart in the *Lancet*, July 1865, and by Dr. Handyside in *Ed. Med. Journal*, 1866, in each instance drawings accompanying the description.

A remarkable example of this malformation has been reported by Dr. Tuckerman in a frog.¹ The animal was blown by some men

¹ *Journal of Anat. and Physiology*, vol. xx. p. 516. Supernumerary leg in a male frog.

whilst blasting with gunpowder out of a crevice in a ledge of mica schist, twelve feet below the surface. The same explosion also brought to the surface five other frogs, of different sizes and ages. The malformed frog was about a month old. The external opening of the crevice measured only a few lines at its widest point, and flowing into it was a small stream of water, which undoubtedly conveyed either the eggs or the frogs in the larval state to the interior of the rock. The animal is represented in Fig. 5.



In the third form we have a mass attached to an individual which does not resemble either head, limbs, or organs, but is an agglomeration of bone, fibrous tissue, blood-vessels, fat, and the like. Braune, Hutchinson, Wagstaffe, and others have figured and described examples of these shapeless masses of tissues attached to the sacral region of human beings.

FIG. 5.—A frog with a supernumerary hind leg. (After Tuckerman.)

Treves has recently reported an example of congenital coccygeal tumour of this nature which occurred in a child. The abnormal mass was found to be composed of skin possessing hair with developing sebaceous and sweat glands, masses of fat, cysts filled with mucoid material, portions of intestines, and bone covered with cartilage. Standing out from the growth were five nipple-like processes of flabby hairless skin that resembled rudimentary digits. The largest of these exhibited vigorous contractile movements that were increased by stimulation with cold. Faint movements could, under certain conditions, be induced in the smaller processes. The mass was removed during life, and was found to be attached to the posterior surface of the coccyx and the lower half of the sacrum.¹

The cases of parasitic fœtuses which have been considered make it fairly evident that every degree of duplicity exists from two perfectly formed individuals to a mere shapeless mass of tissues.

Let us now consider how these malformations arise. To do so it will be necessary to descend to some of the simpler forms of animal life, and gradually work upwards to man. The purpose in view is to demonstrate as fully and as completely as possible that these mon-

¹ *Path. Soc. Trans.*, vol. xxxiii. p. 285.

strosities arise from abnormal division of one ovum, and are not due to the fusion of two ova primarily distinct.

In the first place, evidence must be adduced to show that it is possible for two or more perfect individuals to develop from one ovum.

In 1869, Haeckel,¹ in his monograph on the *Siphonophora*, showed that it was possible, by dividing artificially the first mass of blastomeres, to multiply the number of embryos. The experiments were conducted on the eggs of *Crystallodes rigidum*. The ripe eggs of

this species, like those of the remaining *Siphonophora*, present a clear and transparent yolk. During the process of segmentation the cells of the morula exhibit amœboid movements; this, as Haeckel pointed out, indicates a high degree of individuality in these cells. The experiments were very simple, and consisted in taking a *Crystallodes* larva of the second day, in which the amœboid movements were very lively, and placing them in a watch-glass with sea-water; then, with the aid of a simple microscope and a cataract needle, dividing them into two, three, or four pieces (fig. 6). Detailed accounts of the results of six sets of experiments are given, in which the ova were simply divided, cut into three portions, or quartered.

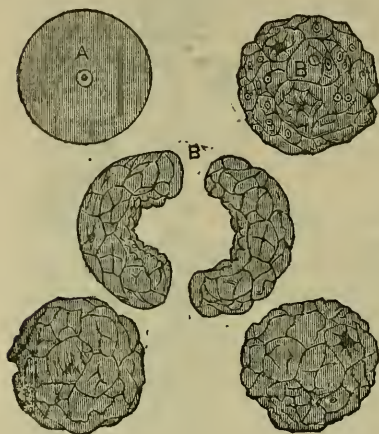


FIG. 6.—A series of eggs of *Crystallodes rigidum*. A. The ovum. B. The ovum after segmentation. C. The same ovum artificially divided into two unequal portions; the concave sides correspond to the cut surface. D. The same halves of the larva a few hours after the division. The polyhedral hyaline cells presented the same amœboid movements as in the uninjured larvæ. (After Haeckel.)

The conclusions arrived at were as follows :—

1. Development continues in the divided pieces.
2. The smaller the piece, the slower the growth of the larva.
3. The smaller the divided portions, the forming larva tends to be more incomplete, and inclines so much the more to monstrosity.

These observations are of great importance, for it must be borne in mind that growth of a morula after artificial division differs very much from the formation of a hydra from a piece cut from an adult animal.

¹ *Zur Entwicklungsgeschichte der Siphonophoren*. Utrecht, 1869.

We will now pass from the Cœlenterata to the worms. In September, 1828, Dugés presented to l'Académie Royale des Sciences a lengthy paper entitled 'Recherches sur la Circulation, la Respiration et la Reproduction des Annélides à Branches.'¹ At page 331 the following passage occurs, relating to the eggs of the worm *Lumbricus trapezoides* :—

'The first of these eggs which I opened embarrassed me much. I saw escape, with a glairy material, a living white, soft, transversely-wrinkled, vermiform animal, composed of a body terminated by two appendages marked from right to left by a regular spiral. It was a monster formed of two individuals joined together, fused in a part of their length, as I have since observed in others, but with less symmetrical conformation.

In each egg I have constantly found, plunged in the same albuminous jelly, either two germs, two cicatriculæ, or two fetuses, except one of the two germs, though not aborted, merely left traces of its former existence.'

In a foot-note, Dugés makes a further observation :—

'Even in the ovary we perceive that these eggs present two distinct cicatriculæ, at times isolated, at other times contiguous.'

This anatomist illustrates the phenomena he describes by some crude drawings, but there can be no ambiguity about the facts he thus draws attention to.

The embryology of the worms in which Dugés made these curious observations has been made the subject of careful study by Kleinenberg,² and as the early stages of the ova after impregnation present some remarkable phenomena which have an important bearing on the question under discussion, it will be necessary to consider them. Kleinenberg enters minutely into the details of the segmentation of the egg and the first appearance of the embryos, tracing the process step by step (or almost cell by cell, so carefully is it described), and shows that it is the normal condition in this species of *Lumbricus* for a single germ to develop two embryos which remain for a time united by a commissure. In this union the two embryos, forming a rather monstrous twin organism, remain for some time, growing and developing and completing their internal organisation, turning gently in the

¹ *Annales des Sciences Naturelles*, tome xv. p. 284, 1828.

² 'The Development of the Earth-worm *Lumbricus trapezoides* Dugés,' by Nicholas Kleinenberg. *Quart. Journ. of Micros. Science*, vol. xix., 1879. The worm *Lumbricus trapezoides* is one of the most common species in Ischia, as in the neighbourhood of Naples. It is abundant in gardens and in the muck-heaps of arms.

albumen, without at all impeding one another, by the concordant action of their vibratile cilia. As a rule the commissure relaxes until at length it breaks, and the embryos are freed. There are cases not at all rare in which this singular form of development leads to monstrosities. In fact, among perfectly developed worms double monsters are met with presenting all grades of concrecence, from those firmly united along the whole extent of the body, so that it is impossible to separate them without breaking the embryos into pieces, to others which are hatched coupled together, but only by a thin frail ligament that the worms effect a separation. These junctions are always confined to the epithelial layer of the body wall. Kleinenberg further tells us that he has never ascertained the existence of one of these eggs giving origin to a single embryo. It is true that a single worm escapes from a capsule, but then nearly always the remains of its companion are found.

In those cases in which a well-developed embryo of *L. trapezoides* produces a rudiment of another, the examples in which this might be considered a bud are rare and to be held as abnormal. Regularly the second embryo, although formed a little later and in connection with the other, does not develop from the em-



FIG. 7.—Transverse section of a double embryo of *Lumbricus trapezoides*.



FIG. 8.—A similar section, in which one embryo is suppressed, merely appearing as an excrescence. (After Kleinenberg.)

bryoplastic material employed in the formation of the first, but from a portion of the blastomeres derived directly from the segmentation which remains intact until it becomes an independent formative centre.

Double embryos are not uncommon among other species of worms, and an example described and figured by Jeffrey Bell may be found in the *Annals and Mag. Nat. Hist.*

These observations demonstrate unquestionably the production of

a twin embryo from a single ovum. We must now enter the vertebrate circle, and consider some examples of the development of twin embryos among the Ichthyopsida (fish and batrachia).

The growth of a double-headed embryo from a single ovum has been actually witnessed in a batrachian by Clarke.¹ In the spring of 1879 he had in his aquarium two or three thousand eggs of *Amblystoma punctatum*, whose development he was studying. One day he chanced to find one with the medullary folds nearly completed, but they had not united at their cephalic end, and appeared to be much elevated and rounded at their anterior ends, instead of ordinary vague outlines, that he kept the egg apart and watched it. Each free portion of the medullary fold developed a perfect head, which, at first partly united, gradually became more so, until they were connected throughout their entire length. Posterior to the heads there were no signs of duplicity.

In this case a two-headed monster with a regular symmetrical body was developed from one egg, and the anterior portion of each medullary fold gave rise to a head. It is surprising that the portion of each medullary fold which ordinarily gives rise to a definite half of the head should in this case have developed a perfect head with paired eyes, ears, and branchiæ (fig. 9).

Instances of double embryos appear to be exceedingly common in fish, and the Teratological Series of the Royal College of Surgeons possesses some interesting examples. In 1879 Rauber contributed some excellent papers to the *Morp. Jahrbuch*, in which he describes and figures many examples of double trout, salmon, and mackerel. He has also been successful in detecting many cases of abnormality of the medullary folds, and the evidence seems to prove that had these continued in development a double embryo would have resulted.

It is of course impossible to be able to verify from direct observation the formation of two embryos from one ovum in mammals, but the following facts, apart from all reference to the preceding statements, strongly support such an opinion:—

1. There is a continuous series of forms from one extreme of duplicity to the other.



FIG. 9.—A double monstrous specimen of *Amblystoma punctatum*, observed by Clarke to develop from a single ovum.

¹ Mr. Samuel F. Clarke, *Anniversary Memoirs, Boston Soc. Nat. Hist.*, 1880.

2. Each embryo in a double monstrosity is smaller as a rule, but never larger, than a normal single foetus. If the duplicity were the result of the fusion of two ova, this condition would not be so constant.

3. Double monsters are invariably of the same sex. From these facts it is fair to infer that it is not improbable that when twins occur of the same sex they are the product of a single ovum. Parasitic foetuses and supernumerary limbs in the sacral region may be regarded as suppressed embryos, the autosite and parasite originating from a single ovum.

If parasitic foetuses occurring in the sacral region arise in this way, the same mode of origin applies to similar masses found in other situations, but care must be exercised so as to avoid confounding them with dermoids (teratomata).

RECTAL DERMIDS ORIGINATING IN THE NEURENTERIC CANAL.

In my *General Pathology* an attempt is made to show that dermoid cysts are most commonly found in situations where the three blastodermic layers are brought directly into union with each other, but the union is only temporary. These temporary unions are often represented by a passage which may exist for a longer or shorter period in the embryo, but should in the ordinary course of events become obliterated. The majority of these obsolete canals are lined with epiblast or hypoblast. In some cases these passages are persistent, undergo dilatation, become filled with epithelial *débris*, cholesterine, &c., whilst from the walls sprout hairs and teeth; sebaceous glands also exist in the walls of the cyst.

Teratomata, as these cysts are not inaptly named, occur at times in the rectum, sometimes as high as the sigmoid flexure, at others within two inches of the anus. As a rule they are pedunculated, and hang from the inner wall. A typical example is figured and described by Dr. Heinrich Port,¹ Dr. Danzel,² and Mr. Clutton.³

In these cases the growth contained bone, cartilage, epidermis, sebaceous glands, and hairs. In addition to those which occur within the rectum, others of similar nature, but more cystic and with fewer hairs, are found lying deeply between the rectum and lower end of the sacrum.

Teratomata found in the rectum, or between it and the sacrum, in all probability originate in the neurenteric canal—a remarkable pas-

¹ *Path. Trans.*, vol. xxxi. p. 307.

² *Langenbeck's Archiv*, 1874.

³ *Ibid.*, vol. xxxvii.

sage which curves round the posterior end of the notochord, and serves to bring the central canal of the spinal cord into continuity with the posterior extremity of the alimentary canal. The evidence on such questions as these must always be more or less circumstantial, but recently a very valuable example of abnormal development of the caudal end of the notochord has been published by Ryder.¹

The condition is represented in fig. 10. In the drawing, which was prepared from longitudinal sections of a seven days' chick, it will be seen that the notochord bifurcates posteriorly into a dorsal and ventral portion. A bridge of tissue connects the dorsal spur with the spinal cord. Immediately above the bridge of tissue a vesicle is seen which must be regarded as a persistent portion of the neurenteric canal, which has become dilated. It is easy to see that with a persistent vesicle abnormal arrangement of the notochord, and disturbed relation of the mesoblastic tissue in the immediate neighbourhood, that had the chick lived a sacral teratoma would have been the result.

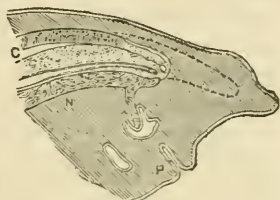


FIG. 10.—A longitudinal section through the caudal region of a seventh day chick. Ch. Notochord. N Spinal cord. Nc. Neurenteric canal. P. Proctodaeum. I. Intestines.

Congenital tumours in connection with the sacrum may be divided from an ætiological standpoint into four classes:—

1. Spina bifida (often called congenital lipomata).
2. Tumours of the post-anal gut (the so-called congenital sacral sarcomata).
3. Cystic growths of the neurenteric canal (rectal dermoids).
4. Parasitic foetuses, or remnants of foetuses.

Each variety possesses special characters.

REPORT ON DR. HEYWOOD SMITH'S TUMOUR OF THE UTERUS, EXHIBITED FEBRUARY 23, 1887.

THE tumour is disc-shaped, and has a diameter of three inches and a thickness of an inch and a half.

Its exterior is fairly firm, but the interior is of the consistence of brain tissue, which it much resembles in appearance. Microscopically it is made up of spindle cells with an admixture of round cells. It is everywhere permeated with blood channels.

¹ *American Naturalist*, vol. xx. p. 392, 1886.

The tumour is a sarcoma, and the examination throws no light upon the singular characters which distinguished its clinical history.

J. BLAND SUTTON.

REPORT ON DR. BANTOCK'S PELVIC TUMOUR.

THE neoplasm is oval in shape, and measures nine inches in its long and five inches in its short axis. When removed it weighed four pounds. On section it was found to possess a distinct and tough capsule, but the interior was as succulent as an orange, and of a pale yellow colour. Here and there a few nodules of denser tissue were found. A large quantity of highly albuminous saline fluid gradually drained from the tumour.

Microscopically, the softer parts of the tumour were found to consist of the spider-like or stellate cells of connective tissue, as

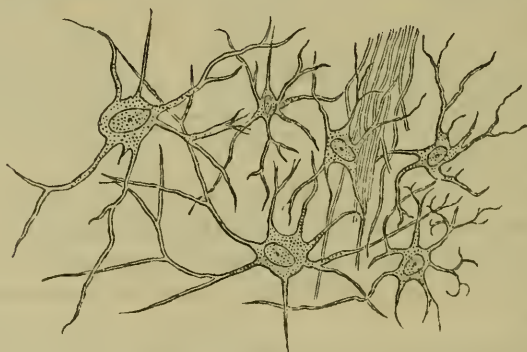


FIG. 11.

shown in fig. 11. The softest parts were structureless, only the nuclei of disintegrated cells could be detected. The external part of the tumour is made of fibrous tissue.

The general and histological characters, as well as its situation, lead me to regard this neoplasm as a myxoma. New formations of this character have been described as *Molluscum fibrosum cysticum abdominale*. The most important point seemed to me to be this:—Is the tumour a simple or malignant one undergoing the myxomatous change? There is no such thing as a pure myxoma. The present specimen is, I believe, a simple tumour, probably a softening fibroid, or myxofibromata of modern nomenclature.

J. BLAND SUTTON.

NOTES.

Dr. Alfred Meadows has been elected an honorary member of the Obstetrical Society of Philadelphia.

Dr. Aveling has been appointed Consulting Physician to the Chelsea Hospital for Women.

We regret to announce the deaths of two of our Honorary Fellows—Prof. Schroeder, of Berlin, and Prof. Gallard, of Paris.

Dr. Robert Barnes and Mr. Lawson Tait have been elected Honorary Fellows of the British Gynæcological Society.

A new uterine hæmostatic, *Hydratis Canadensis*, has been added to our list of remedial agents. Dr. Rutherford and others who have been giving the drug a trial find that it is an effectual agent in checking excessive hæmorrhage from the uterus during menstruation, and in some cases of bleeding myomata. It has hitherto been administered in doses of from twenty to thirty minims of the tincture two or three times a day.

TRANSATLANTIC RATES.

For the information of our foreign brothers who propose to attend the meeting of the International Medical Congress, which takes place in Washington, D.C., on the 5th of September next, the following rates of travel across the Atlantic Ocean have been submitted and recommended for their acceptance :—

Red Star Line.—\$100, Antwerp to New York and return.

Inman Line.—\$100, Liverpool to New York and return.

Hamburg Line.—\$90, Hamburg to New York and return.

Royal Netherlands.—\$80, Amsterdam to New York and return.

The committee have proposed that each delegate shall have the privilege of bringing with him, at the same rate of expense, two or

more lady members of his family, and that proposition has been accepted by those lines selected. Steps have also been taken to ascertain, at each of the four ports, Amsterdam, Liverpool, Antwerp, and Hamburg, the exact number of persons who will embark at these ports entitled to this reduction of rates. All further information on this subject will be promptly published in 'The Journal of the American Medical Association.'

A. Y. P. GARNETT, M.D., Washington, D.C.,
Chairman of Committee of Arrangements.

NINTH INTERNATIONAL MEDICAL CONGRESS.

Section IV.—Obstetrics.

The attention of gentlemen who desire to contribute papers to the Section of Obstetrics is respectfully invited to the following extracts from the rules of the preliminary organisation :—

'Brief abstracts of papers to be read in the Sections shall be forwarded to the Secretaries of the proper Section on or before April 30, 1887. These abstracts shall be treated as confidential communications, and shall not be published before the meeting of the Congress. Papers relating to topics not included in the list of subjects proposed by the officers of the Sections may be accepted after April 30, 1887, and any member wishing to introduce a topic not on the regular list of subjects for discussion, shall give notice of the same to the Secretary-General at least twenty-one days before the opening of the Congress. The titular officers of each Section shall decide as to the acceptance of such proposed communications and the time for their presentation. No communication shall be received which has already been published or read before a society.

'The official languages of the Congress shall be English, French, and German. Each paper or address shall be printed in the *Transactions* in the language in which it was presented. Preliminary abstracts of papers and addresses shall also be printed in the language in which each is to be delivered. All discussions shall be printed in English.

'All communications and questions relating to the special business of any Section must be addressed to the President or one of the Secretaries of that Section. As many details of the Congress and numerous appointments of officers are yet to be completed, other circulars will be issued from time to time as circumstances may demand.'

The meetings of the Section of Obstetrics will be held in Washington, D.C., on the afternoons of September 5, 6, 7, 8, 9, and 10, 1887.

PROF. DE LASKIE MILLER, M.D., *President*,
2011 Prairie Ave., Chicago.

W. W. JAGGARD, M.D., 2330 Indiana Ave., Chicago.	} <i>Home Secretaries.</i>
JOSEPH KUCHER, M.D., 33 East 33rd Street, New York.	

The well known work of Prof. A. Martin, of Berlin, on Diseases of Women, has just reached the second edition.

The following is the list of officers in the Obstetrical Section of the British Medical Association meeting, to be held in Dublin in August next :—President, A. V. Macan, M.B. Vice-Presidents, T. More Madden, M.D. ; A. L. Galabin, M.D. Honorary Secretaries, W. J. Smyly, M.D. ; W. Duncan, M.D.

Antifebrine as an antipyretic is an agent of undoubted efficacy, and more certain in its action than antipyrin. Used in doses of five to ten grains, it reduces the temperature in from three to six hours several degrees. A disadvantage it possesses is that in some patients it brings about symptoms of collapse, the frequency and tension of the pulse diminishing with the falling temperature. It does not disorder digestion. There is sweating often profuse. Antifebrine is the product of the action of acetic acid on aniline at a high temperature.

Lanoline is the title given to a new cholesterine fat which is now being used for external applications in the place of older and less absorbable bases for ointments. We have tried it, and find it possesses great penetrating power when used as a vehicle for various drugs, absorption taking place much more rapidly than when any other unguent is used.

NEW INVENTIONS.

Messrs. Burroughs and Welcome have arranged a handy little portable case in leather, containing a series of tubes with tablets of all the different drugs used for hypodermic injection. The case also contains a hypodermic injection syringe. It is altogether most com-

pact and handy. The tablets readily dissolve in the very small amount of water which is required for that purpose. We have used



the case, and can recommend it to those who wish to have reliable doses of drugs in the smallest possible bulk.

In reply to the vote of condolence forwarded to Madame Gallard, Dr. Barnes has received the following letter :—

Monsieur,—Le Docteur Banteck, au nom de la Société Gynécologique d'Angleterre, vient de nous adresser au sujet de la mort de mon regretté mari, le Dr. Gallard, une lettre de condoléance, dont les termes sympathiques nous ont profondément touchés.

Notre seule consolation, au milieu de notre immense douleur, est de voir le nom du Dr. Gallard honoré et estimé comme il le mérite si bien, et de recevoir les marques de la considération dont on se plaît à entourer sa mémoire.

Parmi ces témoignages nombreux, ceux que nous avons reçus de vous, Monsieur, et de vos honorables collègues de Londres, nous sont tout particulièrement précieux.

Monsieur Gallard avait une haute estime des praticiens d'Angleterre ; il avait été heureux de juger et d'apprécier par lui-même leur

science et leur bonne confraternité ; il en faisait souvent l'éloge et se rappelait avec plaisir les relations qu'il avait pu avoir avec eux.

Nous répondons à ses sentiments personnels autant qu'aux nôtres en vous priant, Monsieur, de vouloir bien être nos interprètes auprès des membres de la Société Gynécologique de Londres, pour leur exprimer nos sincères remerciements pour l'intérêt qu'ils nous ont témoigné et pour l'hommage qu'ils ont bien voulu rendre à la mémoire de M. Gallard.

Recevez, Monsieur, avec l'expression de ma reconnaissance pour les bonnes paroles que vous m'avez envoyées, l'assurance de mes sentiments distingués et de mes meilleurs souvenirs.

A. GALLARD.

PARIS : 8 mars 1887.

It is with the deepest regret that we learn, at the moment of going to press, of the death of Dr. Alfred Meadows. We shall give the history of his life and work in the next number of the Journal.

THE BRITISH GYNÆCOLOGICAL JOURNAL

VOL. III.—NO. 10.

AUGUST, 1887.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, MARCH 23, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT, IN
THE CHAIR.

PRESENT : 27 Fellows, 7 Visitors.

The following was elected a Fellow of the Society :—
Dr. A. E. A. Pettingill.

The following were proposed for election :—Dr. T. G. Merrison, Ontario ; D. W. Spencer Caldwell, Illinois ; Dr. P. A. Sheley, Kentucky.

The PRESIDENT then read a letter from Madame Gallard, in which she expressed her thanks for the vote of condolence sent to her on the death of her husband, Prof. Gallard.

Dr. WALTER showed a specimen of Gamgee tissue which by his advice Woolley & Son of Manchester had prepared. It differed from the ordinary tissue in being twice the ordinary thickness, as well as being rendered thoroughly antiseptic with corrosive sublimate.

Dr. Walter strongly recommended it to those members of the Society who still believed in antiseptic dressings. Besides

being a valuable absorbent surgical dressing, it made an excellent vaginal plug, and was otherwise useful in obstetric practice.

Dr. PEARSE exhibited a forceps with a hinge which enabled the general practitioner to carry it about conveniently. It possessed the advantage of being easily applied ; the handle of the first blade could be moved either backwards or forwards while the other blade was being inserted.

Dr. BARNES said that the main plea for jointing the blades of the forceps was to facilitate their introduction in the sides of the pelvis, the patient lying in the ordinary posture on her left, near the edge of the bed. This was held to be necessary in order to allow the handle of the blade which was passed into the upper or right side of the pelvis to be lowered below the edge of the bed. A jointed forceps would obviate this necessity. But in fact the necessity need not arise. The proper way was that figured in his 'Obstetric Operations,' of introducing the blades horizontally along the curve of the sacrum, and turning the point to the sides of the pelvis when sufficiently introduced. He (Dr. Barnes) had found this out from having occasionally, in his earlier days, to apply the forceps to poor women who had no bed to lie on. By adopting the method described he found it almost as easy to apply the forceps to a woman lying on the floor or in the middle of the bed as to one in the ordinary position.

Dr. Barnes did not gather from Mr. Tait that he claimed priority in the use of the syphon principle. He (Dr. Barnes) first saw this applied to washing out the stomach at Munich several years ago, and he had adapted it to the irrigation of a suppurating irremovable ovarian cyst at St. George's Hospital, with obvious advantage. Mr. Tait's application to abdominal surgery was especially valuable.

Dr. EDIS exhibited a mucous polypus removed from the cervix uteri. Before removal it was about the size of a Spanish olive. The chief point of interest was that the symptoms caused by its presence simulated those of a far more serious condition.

E. S. O., aged 65, married 20 years, now a widow, sterile, ceased to menstruate 20 years since. She was perfectly well until January last, when she was seized with bearing-down pain in the lower abdomen and some difficulty in micturition. 'Dragging' pain persisted, being worse on lying down, and there was recurrent hæmorrhage from the vagina, the blood rushing from her on first rising in the morning. When bleeding ceased there was a constant mucous discharge, at times very unpleasant.

On February 21 she had a severe flooding on first rising in the morning; a sanguineous discharge has continued since then. The history of flooding, twenty years after the menopause; bearing-down pain, worse at night; offensive discharge—all pointed to malignant disease of the uterus. On examination, however, a mucous polypus was detected projecting from the cervix uteri, adherent to the anterior lip. This was removed by torsion and slight nicking with the scissors. After this the pain and hæmorrhage completely disappeared. The uterus was found to be normal.

Dr. Edis exhibited a placenta bearing evident traces of having become partially detached, with recurrent attacks of hæmorrhage. The history of the case was, briefly, as follows:—

H. S., aged 34, married 13 years, mother of two children, youngest three and a half years old. Catamenia regular up to July 1886. About the middle of August, three weeks after the last period, she had a flooding, lasting three days. It then ceased, and she had severe pain in the left iliac region and across the lower part of the abdomen. About September 10 she passed a quantity of pure bright blood with clots, and this recurred two or three times for the next two months. For the last three months the sanguineous discharge has been less in amount and lighter in colour, but almost constant, only intermitting for short periods now and again. No suspicion of pregnancy was entertained by the patient herself. On examining the abdomen a central slightly prominent circular swelling was detected, extending from the symphysis

pubis up to the level of the umbilicus, dull on percussion. On palpation, intermittent contractions and relaxations could be readily detected. No uterine souffle or foetal heart-sound could be heard. The mammae were somewhat flaccid, but blue veins were seen mottling the surface; the areolae were dark and the papillae prominent. On vaginal examination the uterus was found to be excessively bulky, the fundus extending up to the umbilicus. The cervix was soft, fleshy, granular, dilated sufficiently to allow the tip of the finger to enter. No placenta detected. The diagnosis arrived at was utero-gestation about the fifth or sixth month, with partial detachment of the placenta, situated in the fundal zone; accidental hæmorrhage so-called. In many respects the case resembled one of a rapidly growing fibroid or fibro-cystic tumour. The patient had no suspicion that she was pregnant, although she had had two children previously. Error in diagnosis might readily have led to serious mischief, supposing the abdomen had been opened with a view to removing the appendages or dealing with the enlarged uterus by hysterectomy. Efforts were made to prevent labour coming on, by resting the patient in bed, and pursuing appropriate local treatment; but on March 22 a five-months' foetus was expelled. On examination the margin of the placenta was seen to be continuous with old fibrinous clots of varying degrees of age, some quite organised, others partly decolourised. The aperture in the membranes through which the foetus had been expelled was distant from the placenta; showing that this had occupied its normal position *in utero*. The patient made a good recovery.

The PRESIDENT exhibited a rare and interesting tumour which had been admirably prepared and mounted by Mr. Bland Sutton. It was removed on March 1 by abdominal section. The patient was a married woman, aged 40, and the mother of thirteen children. The tumour was discovered at the birth of her last child, in July 1886. It was situated in the right lower part of the abdomen, and was believed to be a solid ovarian. On exposing the tumour it was found to be covered by peritoneum, which moved freely over it. This was

divided in the direction of the abdominal wound, and the tumour readily enucleated, though there was a great deal of bleeding, chiefly from very small vessels. The peritoneum was reflected from the parietes as far forwards as to within two inches of the middle line by the lower end of the tumour. On the inner aspect—*not the inside*—of the envelope were found the ovary and its tube, and, being in an unhealthy condition, they were removed in the usual way by ligature. Thus the tumour was in no way directly connected with the ovary, Fallopian tube, or uterus, but appeared to take its origin in the extreme outer part of the right broad ligament and in the iliac fossa. The sac was stitched to the abdominal wound and drained, and the patient recovered.~

Appended is the report drawn up by Mr. Bland Sutton.

Methods of Cleansing the Peritoneum. By LAWSON TAIT,
F.R.C.S. Edin.

Unless it be the fact that we now open the peritoneum, as I have repeatedly said, very much as we open our pockets, nothing can be more striking than the freedom with which we are accustomed to deal with it when circumstances require that the cavity should be cleansed out.

In the early days of abdominal surgery no precautions of this kind were employed, and every operation was done in a fashion which makes it perfectly clear that terror was the chief factor in the mental condition of the surgeon whilst performing it. I do not know exactly to whom is due whatever little merit of priority there may be of introducing methods of cleansing the peritoneum, particularly that which I am about to advocate—the new method of washing; but I certainly never saw it done, nor did I hear of it being used in the hands of any one until 1876, when I had myself completely developed it. Keith has made a claim that he employed it some twenty years ago; but there is no direct evidence of his employment of it; and certainly when first I saw him operate, some seven or eight years ago, his method of cleansing was

that of elaborate sponging, and no kind of washing was employed in a case where I should have washed very carefully and sponged very little. In a recent discussion at the Obstetrical Society Dr. Gervis made a statement that the method of washing the peritoneum originated amongst the Americans; but I think he must have made this statement without sufficient consideration, because on inquiry he has not favoured me with any authority for his assertion. Certain it is that amongst my numerous American visitors the fact that I use the peculiar method of washing has been to them one of all-absorbing interest, and, before they saw it, of no small amount of incredulity. I have not found any American surgeon who before he saw my work was familiar with it. However, this question of priority is of very little importance, and very likely we shall find that it has been used many years ago, and probably given up by reason of an incomplete method. The methods in which, however, I employ it are completely elaborated in detail, and the results are eminently satisfactory.

Speaking of methods of cleansing the peritoneum, I generally employ the words *primary* and *secondary*; and for the primary cleansing of the peritoneum there are several methods in use, all of which may be employed with advantage under certain circumstances; and in the employment of the method of washing the details vary according to the required results. Let me take one instance as an illustration of what may be accomplished by one method, which cannot be completely or satisfactorily accomplished by another.

Thus, there is an ovarian tumour of a kind which involves primary cleansing more completely, and in a more elaborate fashion, than any other. I mean the tumour which contains that gluey material which, while it is not set like calf's-foot jelly, is not of a consistence to be easily run through a tube, and yet not dense enough to be ladled out by the hand. The cyst-walls of these tumours are always very thin; they give way; and then this abominable gluey material is scattered about through the intestines, no matter what precautions may

be taken. Sponging of course fails to remove this fluid from the cavity, because it will not sink into the sponge, and each sponge will carry off only a superficial covering of it. Fortunately, however, it is soluble very easily in lukewarm water, and may be completely removed by a stream of the same. This illustrates one of my methods of washing, which differs from the other by reason of the kind of material I wish to remove.

I hold in my hand (Fig. 1) my two ovariectomy trocars, which are of an absolutely simple construction, and therefore are far

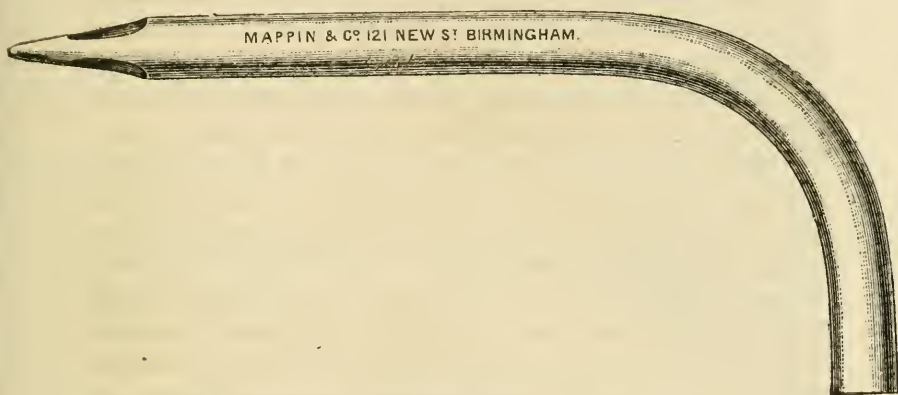


FIG. 1.—Trocar.

more valuable instruments than the various contrivances which have been introduced by Wells, Thompson, Fitch, myself, and others. There is no double sliding-tube to be stiff and unworkable at the moment when it is most wanted to be ready. There are no spring claws to catch at the wrong thing when the operator is hurried or his assistant inexperienced. They are simply tubes curved so as to be convenient for a handle, and having a bevelled and chisel-shaped edge, very blunt, and provided with two eyelet-holes, one on each side, for the fluid to run out of. They are identical, save that they are two sizes—one large size, $\frac{7}{8}$ of an inch in diameter, which would empty a bucket of water in about a minute and a half, and intended for very rapid work; as the smaller, $\frac{7}{16}$ of an inch

in diameter, is used where more leisurely washing or evacuation is required.

It is by means of these two instruments that I am enabled to remove very large ovarian tumours through very small apertures, for by reason of their free use I am enabled to break down almost every part of an ovarian tumour which is not completely solid, and to draw the outside shell through incredibly small openings.

The method of washing by these instruments is a simple reversal of their action. The end of the indiarubber drainage tube is put into a ewer of blood-warm water, and this water is syphoned into the abdomen, and the point of the trocar being made to travel in any part or into any position in the abdomen which may be wanted, the stream of water is directed against any foreign body or material which it may be desirable to wash out. In the case of the gelatinous tumours that I have described, the stream of water must be slow, and the soiled intestines must be gently washed in it by being moved about by the fingers, whilst the finger or a small sponge is made to travel over the peritoneal coating of the abdomen and free it from the gelatinous material. The rapid stream will not affect the cleansing in such a case; neither, similarly, will a rapid stream effectually remove effusion, or the purulent and flocculent material of acute, sub-acute, or tubercular peritonitis. The rapid stream of the large-sized instrument, on the contrary, is the most useful method of removing quantities of blood-clots, as in ruptured tubal pregnancies, when, the point of the big instrument being placed far down in the pelvis, the rapid stream of water will force up out of the wound enormous masses of clot in the course of a very few seconds; and in this way the abdomen may be cleaned out with amazing rapidity—a rapidity which will involve the shortening of the operation by the best part of an hour in comparison with the old method of sponging.

Let me say one word as to the temperature of the water which is to be employed. If too cold, it may subject your patient to a considerable amount of shock; and if too warm,

it may possibly give rise to some kind of unpleasant consequences. I prefer it to be of such a temperature as my hand will endure with comfort, and that I find to be about 103° to 106° or 107° . Never allow a nurse to mix the water without your testing it before using it, for I find that the hands of women are so inured to the use of hot water that they have no sense of its temperature at all, and they will often hand water for use in the cavity of the abdomen which my hand could not endure contact with. Extremely hot water is useful, however, in arresting hæmorrhage from adhesions, and a stream of water of 120° may be directed into the pelvis for a few seconds, probably with considerable benefit in arresting oozings from small bleeding-points. But I rarely find any trouble in arresting bleedings from adhesions after the use of sponge pressure for a few moments; if it resists this, a drainage tube will almost certainly accomplish all that is required.

I need not say that no precautions are taken in my practice to sterilise the water—that is, to deprive it of its natural germs of animal and vegetable life. I do not believe that they have the slightest evil influence in the peritoneum. There is no chemical substance put in the water, and nothing is used but the ordinary domestic water from the tap, to which is added enough hot water from the kettle to raise it to the requisite temperature. Any statements which are made to the effect that I employ some sterilising agent, or use distilled water or boiled water, are absolutely untrue.

The method of cleansing the peritoneum by sponging is one which I have given up to a very large extent. In the first place, my dread of sponges is very great, as I think they are probably the most efficient means of carrying infection with which we are acquainted; and I never introduce a sponge into the abdomen if I can avoid it, the method of washing which I have just described having superseded it in the great majority of conditions. I do not think that the mere mechanical act of sponging will do much harm to a peritoneal surface which is fairly healthy; but when that peritoneum is

inflamed I believe that the process is fraught with much danger. We all know how easy it is to rub off the epithelium of inflamed skin, and how troublesome the results of such a proceeding are. I cannot, therefore, be brought to believe that rubbing the inflamed peritoneal surface with sponges can have any advantageous results. In the presence of peritonitis, specially with purulent and flocculent or tubercular effusion, I trust entirely to washing-out; my sponging is limited almost entirely to the treatment of bleeding-points, the great majority of which can be successfully treated by stuffing the pelvis full of sponges and leaving them there while you are engaged in putting in the sutures. A very useful wrinkle about this is to put in the continuous sutures,

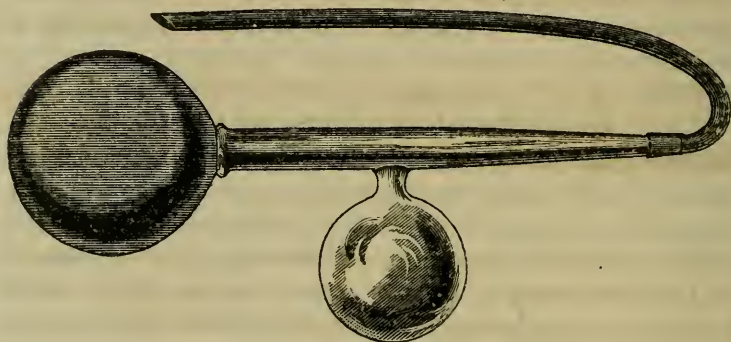


FIG. 2.—Sucker.

leaving the loops very loose, so that by cutting the loops they may be converted at once into interrupted sutures. The benefit of this is, in the first place, that it is the simplest of all methods of suturing; and, secondly, that it shortens the time occupied by the operation by giving you something to do while the sponges are exercising the necessary pressure; and, further, that when you come to remove the sponges, it is impossible to drag them out without the fluid being taken.

Cleansing the peritoneum by sponging is what I very rarely do now, because I find, as I have already said, that it is so much more easily and effectually accomplished by wash-

ing. Occasionally I employ a sponge, or a few sponges, to remove the remains of the washing-water ; but of late I have found that it is much more effectually removed by putting a drainage tube down to the bottom of the pelvis, that is, just at the time when the wound has to be closed, and removing the fluid by means of the sucker which is here depicted (Fig. 2). This is only a modification of the common test-tube provided with a piece of extraction tube, which can be easily worked by an intelligent nurse. As soon as the pelvis is dry I remove the drainage tube and adjust the last stitch. In this way a perfectly dry pelvis can be secured without any kind of sponging.

For the secondary cleansing of the peritoneum, the only method which I employ is the drainage tube (Figs. 3 and 4), and this is a device for which, so far as I know, we are entirely

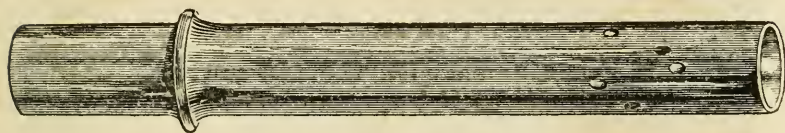


FIG. 3.—Drainage Tube (Keith's).

indebted to Mons. Koeberle of Strasburg. He first showed me the contrivance in the year 1871. It was a long conical tube with a sharp point, the idea of which seemed to me to be open to serious objection, for, as we were then all using the clamp, I thought that the decomposing discharge from the stump would be just as likely to find its way into the pelvis from the outside, as anything which would be an advantage to the patient to get rid of could come from the inside outwards through the clamp. I therefore did not use the drainage tube at all during the use of the clamp, and it was not until I had been persuaded by Keith of the advantages to be derived from the use of the drainage tube that I employed it—about 1881.

In cases of ovarian tumour it is very seldom necessary to use a drainage tube, because nowadays that we get patients at an earlier stage, before adhesions have been secured by

repeated: tapplings, there seldom occurs the need of drainage. Probably only five per cent. of my cases of ovariectomy have had drainage tubes inserted, and these were chiefly patients of an advanced age, in whom I find that the power of absorption on the part of the peritoneum is by no means as active as in early life, and the drainage tube then is an extremely useful adjunct to the process of recovery.

It is in cases of diseased uterine appendages where the drainage tube asserts itself, in operations which are infinitely more difficult than removal of ovarian tumours. Here I have no hesitation in saying that Koeberle's addition to our method of treatment has reduced the mortality enormously. In the first place, the removal of adherent uterine appendages is always accompanied by a large amount of hæmorrhage; old adhesions bleed terribly; sometimes important vessels are torn, and it is perfectly impossible to secure bleeding-points down in the depths of the pelvis. If sponge pressure fails the drainage tube is a most useful hæmostatic, and the best form of it is Keith's, where we have an open bottom; and this form I always use when I have to encounter any risk of hæmorrhage. The direction given to the nurse is to empty the drainage tube every few minutes as long as blood comes; and whilst I have often closed a wound while the blood came welling up from the drainage tube in a semi-clotted condition—very much as sausage meat comes up out of a sausage-making machine—I have never felt uneasy as to the result; and in all of the cases of this kind that I have operated upon, now amounting to some hundreds, there has been only one death from hæmorrhage. In three other cases I might have lost the patients from hæmorrhage but for the timely injection of solution of perchloride of iron through the drainage tube on to the bleeding surface. In these three cases the results were perfectly satisfactory.

My theory is, that the drainage tube is extremely beneficial by reason of its permitting coils of intestine to fall down from bleeding surfaces, thereby economising the force of those laminae of clot rapidly extending over the bleeding surfaces

and thus arresting the hæmorrhage. At any rate there can be no question at all that the drainage tube is a hæmostatic of a very powerful kind, and that it also helps us to recognise the fact that hæmorrhage is occurring, and to take steps for its arrest if it should be very serious; and it also removes the effusion of blood, which would be a source of great danger. Another condition in which the use of Keith's drainage tube is eminently necessary is where, in removal of the uterine appendages, there is a small hole torn in the rectum, as has happened to me on several occasions. There a very wide tube must be inserted, and I have in several instances had the anxious satisfaction of seeing the whole of the contents of the intestines pass through the tube, and then gradually cease, and the patients recover, as they did in every instance.

There can be no question that the drainage tube very speedily becomes canalised by the adhesion round it of in-

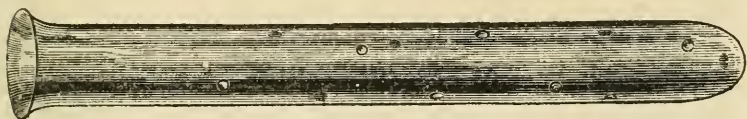


FIG. 4.—Drainage Tube (Tait's).

testine and omentum; so that it is only during the first seventy or eighty hours that any kind of drainage tube becomes a method of cleansing the general cavity of the peritoneum.

When it is my desire to remove effusion which is going on in the peritoneum in a chronic inflammatory condition, or excited by some other cause, I use a drainage tube which is exactly like a common test-tube, perforated throughout its entire length by small holes (Fig. 4). This is more useful in such circumstances than Keith's form, for, in the first place, it is not open at the bottom, and therefore is not so liable to punch a hole in a fold of intestine by its own weight or by being forced against it by heavy dressing. Again, it is much less open to the entrance of pieces of omentum, and even to the blocking of the bottom like Keith's drainage tube after the second or third day. Then, by reason of the holes being all over the tube, it drains the upper as well as the lower part of

the abdomen. The punching a hole in the intestine by a drainage tube is no imaginary danger, and to avoid it I always change the tube within forty-eight hours for a tube of a smaller diameter and shorter length. I use tubes of two diameters only, but of very various lengths; and if I use a tube half an inch in diameter and six inches long for the first thirty hours, I find it best at the end of that time to change it for a tube four or three and a half inches long and $\frac{5}{16}$ in diameter. The length of time during which a drainage tube is to be allowed to remain will depend on whether it is entering an abscess or suppurating cavity, or simply is used for the purpose of a general cleansing. In the latter case, I do not think the tube need remain in longer in any case than three or four days. If, however, it is entering a suppurating cavity it must be kept in longer; and it is well in these cases to substitute a soft indiarubber tube of small diameter at the end of the fourth day.

The rules for the use of drainage tubes are not very precise; still, so far as I can assert them, they are simple enough.

1st. I always use a tube when there is oozing going on, or if I have reason at all to anticipate the occurrence of hæmorrhage.

2nd. The tube is continued until after the hæmorrhage ceases.

3rd. Drainage is always used in cases where there has been a ruptured cyst or suppuration of the peritoneal cavity, or where there has been persistent or extensive ascitic effusion. Increased age invokes increased frequency in using the drainage tube.

4th. There is an increasing need for drainage as the age of the patient is advanced—that is, in a woman of thirty-five with an ovarian tumour I should never dream of using a drainage tube, whereas at fifty-five I most certainly should.

5th. Finally, I think that of all methods of secondary cleansing the washing-out with the drainage tube is the simplest. In many cases I trust to the assistance of the

drainage tube to gain time in getting the patient's natural intestinal drainage into action. I am, therefore, greatly given to the administration of aperients about the second or third day, if there should be the slightest distension or the appearance of a prolonged necessity for the drainage tube.

The PRESIDENT remarked that the time of the meeting was about exhausted, and he could only express his general agreement with the views of Mr. Lawson Tait, though he could have wished for an opportunity of entering somewhat into details to show how thoroughly he was in accord with Mr. Tait.

Dr. ALFRED MEADOWS entirely indorsed all that Mr. Lawson Tait had said with regard to the value of washing out the peritoneum in cases of abdominal operations, and he considered the particular methods adopted by Mr. Tait as very simple, ingenious, and effective. With reference to Mr. Lawson Tait's remark that Dr. Gervis had disputed his priority in this mode of practice and has ascribed it to some American source, he (Dr. Meadows) had just learned from Mr. Tait that he first adopted it in the year 1877. This being so, Dr. Meadows claimed priority over at least Mr. Tait, for he had adopted this practice when attached to the Hospital for Women in Soho Square fully fifteen years ago. The method he (Dr. Meadows) pursued was to fill the abdomen with warm water and empty it again by turning the patient on her side, repeating it again and again if need be. Mr. Tait's method was infinitely superior to this, and Dr. Meadows accepted both the practice and the particular mode of carrying it out.

Dr. EDIS could corroborate Dr. Meadows's statement as to washing out the peritoneal cavity at Soho so long back as 1873, but the method employed by Mr. Lawson Tait was a great improvement. Dr. Edis had seen Mr. Tait's mode of procedure, and regarded it as most important in the cases which Mr. Tait had indicated. The process only occupied a few minutes, and was far better than mopping out with sponges. Dr. Edis could also fully corroborate Mr. Tait's remark as

to nurses being unable to appreciate the temperature of water. They could endure comfortably many degrees more than the practitioner, as a rule ; and unless a thermometer was employed there was always a risk of making the water too hot.

Dr. WALTER also made some remarks on the value of the drainage tube in abdominal surgery, and drew special attention to the great importance of frequently raising up the tube a short distance in the wound as a means of preventing the omentum and other neighbouring structures becoming adherent to the apertures near the end of the tube, and at the same time preventing the end of the tube ulcerating through the walls of the rectum—an accident which, he knew, had once occurred.

Mr. PHILLIPS HILLS : Mr. President and Gentlemen,—Some six or seven years ago, when witnessing an ovariectomy operation at the Chelsea Hospital for Women, I suggested the very method of washing alluded to by Dr. Meadows, but the suggestion did not meet with the operator's approval. The method now advocated by Mr. Lawson Tait is exceedingly scientific. The action of the syphon is known to us all, and is an exceedingly simple one. I hold that the more simple a method can be the more scientific it is, and the more credit is due to him who adapts it. Sponging has always appeared to me a very probable cause of peritonitis. We are always taught what a delicate structure the peritoneum is ; and yet, to see the sponging sometimes done, it is a surprise to me that the percentage of mortality is not higher. I should like to ask Mr. Lawson Tait if he cannot, by means of his syphon and subsequent use of drainage-tube sucker, entirely do away with sponging.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, APRIL 13, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT: 24 Fellows, 2 Visitors.

The following were elected Fellows of the Society:—Dr. Merrison, Dr. P. A. Sheley, Dr. W. S. Caldwell.

The following were proposed for election:—Dr. G. H. Burford, Leicester; Dr. A. Jamieson, Ontario; Dr. A. P. Woodforde, London; Dr. J. Gordon Black, Harrogate; Dr. Arthur Clarke, Street, Somerset; Dr. M. McCrimmon, Ontario; Dr. A. W. Thomas, London; Dr. W. K. McMordie, Belfast; Dr. J. Ingleby Mackenzie, London.

The PRESIDENT exhibited an ovary, with its accompanying tube, which he had removed from a married woman, the mother of several children. The patient was the subject of a very well-marked retroversion of the uterus, which could not be remedied, for the reason that no pessary could be borne. This was explained by the fact that the ovary could be felt in Douglas's pouch, where it was liable to be pressed upon by the instrument, because it was fixed there by adhesions. On looking at the ovary one cannot but be struck with the small amount of disease apparent in it; yet it was badly adherent, and was, no doubt, the seat of the inflammatory process now become chronic. The tube is also apparently healthy, and it would appear that the disease was almost entirely confined to the ovary. No trace of the left ovary could be found on the most diligent search, though what appeared to be the uterine end of the tube could be dis-

tinguished, apparently healthy. The patient had been suffering pain for three years—ever since the birth of her last child. She had been treated by rest, and other well-known and often successful measures, but without avail. She was suffering from constant pain, and had become quite incapacitated for her domestic duties. Under these circumstances I felt there was no resource left but abdominal section and the removal of offending parts. The result of the operation so far has been complete relief of the pain, while the shortening of the broad ligament has supported the uterus so well that we may confidently look for a cure of the displacement. On the whole, the result, so far, is most promising, and fully justifies the operation.

Dr. BEDFORD FENWICK said that with reference to the cases quoted by Dr. Edis, and the case under discussion of Dr. Bantock, he would be glad to know if any preparation of mercury had been employed in the medicinal treatment. From the dawn of scientific medicine the extraordinary power of mercury in the absorption, diminution, or complete removal of plastic effusions had been clearly recognised. But at the present day an hereditary discredit attached to the drug as a natural consequence of the salivating extent to which it was used sixty years ago. Despite this, Dr. Fenwick was convinced that our forefathers were right in their high estimate of the potency of quicksilver, and that therefore the practitioners of to-day in the comparative disuse they made of its preparations were neglecting one of the greatest therapeutical aids. He had frequently employed mercury in the treatment of pelvic effusions, generally in the form of the liquor hydrargyri perchloridi in from half- to one-drachm doses thrice daily, and had obtained almost invariably the most gratifying results. When one looked at the firm adhesions binding down the uterus and its appendages, so often found in such operations as those Dr. Bantock had just described, it certainly seemed that nothing but the excavation and removal of the imbedded ovary could possibly relieve or cure the symptoms which its fixation gave rise to. But the compressing and injuring

material is pathologically only organised or semi-organised lymph—exactly the same plastic matter, be it remembered, for the removal of which mercury is even nowadays given in syphilis ; so that on purely pathological grounds its employment might be advised in cases of pelvic effusion. And *practically* Dr. Fenwick found constantly the greatest advantage to the patients from its use. The drug had to be given and taken patiently and carefully, and then he had again and again found the fixed uterus become mobile, the tender effusion, so to speak, melt away and disappear. He would most earnestly, therefore, advise that in all such cases as those under discussion a patient trial should be made of this treatment. For, looking at the danger to life involved in the alternative operation, and at the moral and social effects which that operation involved, he most fervently felt that it ought never to be resorted to till every possible resource of the Pharmacopœia had been exhausted.

Dr. ROUTH said that he thought that Dr. Bantock had laid down a most excellent rule, which was never to cut off a second ovary or tube, if this could be avoided, in the same woman at the same time, but to wait. And yet he thought that Mr. Lawson Tait had expressed an opposite view—to the effect, if he remembered right, that when the tube on one side and ovary were diseased, the tube and ovary on the other side should be removed, because they would become diseased also later, necessitating another abdominal section later on. In this case the ovary was not much diseased, but the tube of one side was. So far, therefore, as he could judge, Dr. Bantock was at issue with Mr. Tait.

Dr. EDIS concurred in the views expressed by the President. Where a retroflexed uterus with a prolapsed ovary existed, no palliative means in the form of pessaries were tolerated ; the discomfort from the pressure of any instrument was intolerable. Where rest and other palliative means had been fairly tried, and failed to afford relief, removal of the ovary was the only method of overcoming the difficulty.

Dr. FENTON JONES exhibited an electric light which

could be fixed to the person of the operator so as to illuminate the speculum through which he was working.

Dr. ROUTH said it would be very desirable if in any service of a medical nature different electric inventors would exhibit the different lights adapted for medical purposes. We should thus be enabled to form a judgment as to the best for use. He had seen one exhibited at the *soirée* of University College, where the whole apparatus could be purchased for two guineas, and where simply turning the apparatus (which was shaped like a thick portfolio, and could be carried as an ordinary hand-bag) developed the light. Returning it to its original position the light was extinguished.

Dr. A. MEADOWS exhibited a solid fibro-myoma of the uterus which he had removed from a patient who was suffering from profuse hæmorrhage. The tumour had been rapidly growing, and the patient was losing strength from loss of blood. She recovered rapidly.

Dr. EDIS thought that these cases of subperitoneal fibroids, although they might not deteriorate the general health in consequence of hæmorrhage, yet caused serious discomfort and distress to the patient on account of the pain experienced from pressure upon surrounding organs; more especially when, as in the case under consideration, the tumour was mainly intra-pelvic. Removal of the ovaries and tubes did not offer such prospect of alleviation of the symptoms in these cases as removal of the growth itself. It was difficult at present to lay down any rule. Each case required to be dealt with according to circumstances.

Dr. HEYWOOD SMITH remarked that the uterus seemed to be cut off at a higher level than the inner os. He considered it would be a good plan if the Society were to discuss, and if possible come to some conclusion, as to cases of fibrous tumours of not very large size, as to which operation is as a rule the more advisable, extirpation or removal of the uterine appendages.

On Missed Abortion. By WILLIAM JAPP SINCLAIR, M.A.,
M.D., Hon. Physician to the Southern Hospital for Women
and Children, Manchester.

'Missed Abortion' is a convenient and sufficiently suggestive term by which to indicate the subject of my remarks. We are familiar with the term 'missed labour' as applied to those cases in which parturition does not come on at the full term of pregnancy and the dead foetus remains for a longer or shorter time in the uterus. Analogously we may very well be content with the term 'missed abortion,' as connoting the retention of a blighted ovum in the uterus for a distinctly longer time than that ordinarily required for the expulsion of the product of conception after the death of the embryo from disease or from injury. The name must also imply a comparative quiescent state of the uterus, in order to distinguish missed abortion from prolonged abortion. That there should be a marginal or intermediate class of cases which cannot be clearly differentiated as missed abortion or as missed labour arises from the nature of the physiological facts.

The retention of an ovum blighted at any stage of its development for several months is considered a rare occurrence. My somewhat exceptional experience of meeting with three well-marked cases in a comparatively short time naturally fixed my attention upon the subject, and led me to examine the facts of a very large number of reported cases, and the opinions afloat on the causes of the phenomena of retention. The facts are numerous and the opinions few; but both facts and opinions are equally unsatisfactory: the former are too frequently ill-reported, and the latter ill-supported. My attention to the subject may have led me to exaggerate its importance; and, if so, I trust I may be forgiven for bringing it before this Society, which is usually called upon to discuss subjects so much more important and practical. To begin with the facts of my cases: they are as follows:—

CASE I.

E. B., aged 32 years. Seen first time January 22, 1884. The patient belongs to the operative class, and has lived in Manchester most of her life. She has been twice married. By the first husband she had four children, and had no miscarriage. She has been married the second time nine months. She menstruated regularly since her last confinement, six years ago, and during her widowhood, and for two months after her second marriage. The patient does not think she is pregnant; has had no signs or symptoms of pregnancy, as far as she knows. Has had no enlargement of abdomen, and is now 'as flat as a board.' She speaks of having occasionally 'a deadly smarting pain' in the hypogastrium; has experienced, sometimes, difficulty in emptying the bladder; but she has not suffered from frequency of micturition. No trouble with bowels at any time. She admits to having been sick occasionally, but not for the last two or three months. Patient's general health has not been good for many years. She has had rheumatic fever twice, the last time about five years ago. On examination of the chest there is heard a loud rough friction sound, especially over the base of the heart. No valvular murmur made out. There is a very strong impulse felt over a wide area. — Examination *per vaginam*: The uterus is felt to be large, like a three months' pregnancy, but harder and firmer. Os not soft; no displacement; nothing made out circum-uterine; no leucorrhœa. Sound not used. Prescribed nux vomica and ergot in small doses.—January 29: Patient reports that she has had a slight 'show' for last two days.—February 1: Began to have pains last night, and after twelve hours of labour she passed an object which is brought by a neighbour of the patient's for inspection. It seems to be a blighted ovum.

The patient did not come again herself, but she was reported to be well two weeks after the expulsion of the ovum.

May 1886: Patient seen again, and found to be in her usual health. She has menstruated regularly until four months ago. Thinks herself pregnant. Heart troubles appear to increase.

The ovum in this case consisted of a large placenta, and, partly imbedded in it, a small shrivelled fœtus in the unruptured membranes. It seemed as if the development had been arrested at a little over three months. The tissues were well preserved, and there was an entire absence of odour of putridity.

CASE II.

S. A. H., aged 28 years. Seen first time January 27, 1885. Has been married six years; has had three children and one miscarriage. Patient is of slight build, pale, anæmic, and sickly. Says she has double hernia, and suffers from 'bearing down' (found, on examination, to have double inguinal hernia). She complains of sense of weakness and palpitation. She aborted at three months in May of last year, and was soon well again. After menstruating once she ceased, and has seen nothing since. In July and August she thought she was pregnant again; she was sick and had other symptoms on which she relied. Since August her health has been worse than it was before. She has had periodic headaches, which she thinks may have corresponded to the ordinary menstrual periods, but there has been no other indications of menses. There has been little or no leucorrhœa, and it certainly has not increased periodically.


Examination *per vaginam*: Vagina relaxed, uterus feels enlarged, the body lying forward over the bladder. It is softer than an ordinary hypertrophy of the uterus, and seems as large as a six to eight weeks' pregnancy. The cervix does not feel soft, like the cervix of pregnancy; it is lacerated, not deeply, on the left side; erosion on the edges of the laceration and round the os. Sound not used. Owing to the peculiar sense of hard elasticity about the enlarged uterus, combined with the history, which was given with unusual clearness, the

diagnosis was put down as missed abortion. The patient first got small doses of citrate of iron and quinine with digitalis, and, on admission into the Manchester Southern Hospital four days later, she was put upon small doses of nux vomica three times a day.

On February 9 the patient passed a body the size of a six weeks' ovum. The embryo was apparently absorbed. No trace of it could be found on carefully opening the membranes, which were intact at the time of expulsion. It was an ovum evidently in the chorion stage of development, and must have ceased to grow about six months previous to its expulsion.

CASE III.

A. McK., aged 34 years. Married $12\frac{1}{2}$ years. Six children (three living). No miscarriage. August 20, 1886. Patient is an oldish-looking woman of the operative class. Appears worn, but is well nourished and apparently healthy. She has not menstruated for nearly ten months. Her last confinement was thirty-eight months ago. She suckled the child twenty-seven months. Menstruated three or four times before weaning, and menstruation was quite regular and normal until menstruation ceased in November last. Shortly after Christmas she had some sort of illness for which she was confined to bed for a week. She suffered from faintness and bearing down, but she is quite sure there was nothing like menstruation or uterine hæmorrhage. Before Christmas she had occasional retchings, and from that and the absence of menstruation she thought she must be pregnant. The symptoms passed away after the illness at the beginning of the year, and there has been no menstruation nor anything like molimen. This patient, coming in the ordinary course to the out-patient room, was subjected to her first examination in the presence of several gentlemen attending my post-graduate course for practical gynæcology, to whom the points of the case were demonstrated. The uterus was found to be enlarged, retroverted, giving the impression of a peculiar hard



elasticity, not the soft elasticity of early pregnancy. The os was firm, not patulous; the vaginal portion was hypertrophied, but not softened. - From the history and the facts revealed by examination, the diagnosis was put down as missed abortion, and, on the patient expressing a wish to come into the hospital, I predicted to the gentlemen who had examined the patient with me that they would have an opportunity of examining the product of conception at our next meeting.

The patient was admitted on August 23, and treated with ergot and nux vomica. On the 26th the sound was passed. It went in readily backwards $3\frac{1}{2}$ inches, and on being withdrawn it was followed by a gush of dark fluid blood. As the medicine and sound seemed to have no effect, on the 27th a laminaria tent was introduced, and when the os had been widely dilated by the action of fresh tents introduced on the 28th, the ovum was expelled on the 29th. In size and appearance it corresponded to about the seventh week of pregnancy. The embryo had again disappeared, the membranes being filled with a dark-coloured fluid only. There were numerous nipple-like projections into the cavity, evidently the result of hæmorrhage. In this respect it corresponded to a case described by Dr. Ed. Chenevière¹ in a paper published last year: 'La cavité de l'œuf est diminuée par un certain nombre de mamelons de couleur orangée faisant saillie dans son intérieur, et qui ne sont autres que les restes d'anciens extravasats sanguins.' The cases are in fact almost exactly similar in all the details. In my case the ovum was expelled a little over nine months from the beginning of pregnancy, and it would seem as if the uneasiness experienced by the patient at the time corresponding to that at which labour should have come on was the cause of her applying for medical advice at the time she did. If the ovum had not been expelled as the result of interference, it is possible the case might have figured ultimately as one of early

¹ *Revue médicale de la Suisse romande.*

menopause, for it will have been observed with what difficulty the uterus was stimulated into expulsive efforts.

Some light is incidentally thrown by the history of the treatment of this case upon another subject, and the fact may be mentioned. Very high temperatures have sometimes been observed at the crisis in cases of abortion—cases that might be called acute, as implying expulsion, or efforts at expulsion, rapidly following upon the exciting cause. The question as to the cause of the high temperature has hardly been asked, much less answered. In the case of retained ovum under consideration the temperature was taken carefully in the axilla and vagina night and morning during the patient's stay in the hospital, and the presence of any complication was excluded by careful examination. When three tents were introduced on August 28 the patient's temperature was almost normal, $98^{\circ}4$ in the axilla, and $99^{\circ}6$ in the vagina. On the morning of the 29th the temperature in the axilla was $100^{\circ}4$, in the vagina $101^{\circ}8$. The tents were removed in the course of the day, some shreds coming away with them; the temperature was then, in the evening, normal. In the morning of the 30th, when uterine contractions had come on and the ovum was in course of expulsion, the axillary temperature was $98^{\circ}4$, and the vaginal $100^{\circ}4$. In the evening the temperature in the axilla was 101° , and in the vagina 102° . The ovum had just been expelled. Next morning the temperature was normal for both axilla and vagina, and it never rose again. A point of interest about the case, in its bearing on the question of the cause of the rise of temperature, is the fact that the ovum was a foreign body, and the uterine vessels which had developed during the period of actual normal pregnancy must have long since returned to their normal condition, and vascular connection with the ovum had long ceased. What then was the cause of the rise of temperature as compared with the ordinary case of abortion?

On comparing these three cases it will be seen that the death of the embryo or foetus occurred in all at an early stage of gestation. In none of the cases was there any

distinct menstrual molimen from the time the ovum ceased to develop until it was expelled. In all three the expulsion was due to interference of some kind. In the first two the equilibrium appears to have been more easily upset than in the third, in which dilatation of the cervix was required to assist the expulsion.

Many cases are reported in which distinct menstrual molimina occurred during the retention, and in one of Dr. Chenevière's cases the patient reported that she had menstruated once, two months before the ovum was expelled. By way of contrast with my own cases, and in order to bring out some points essential to the formation of any theory of retention, I shall give the notes of a case kindly placed at my service by Mr. A. W. Stocks of Salford. This case might almost be classified as one of 'missed labour.'

CASE IV. MR. STOCKS'S.

Mrs. W., aged 38, mother of seven children, in good health, strong, energetic, and intelligent. On September 21, 1883, she engaged me to attend her during her confinement, which she said was to take place on October 20. She last menstruated on January 15, 1883; she said she had been to the Isle of Man during August, and on her return on the 13th she found that she 'felt quite different'; her breasts shrank, her body did not increase in size, and she felt heavy and disinclined for exertion.

On November 3 I was called to her, and found she had injured the middle finger of the left hand, the upper sash of the window having fallen upon it. I found a subcutaneous extravasation of blood on the second knuckle, of globular form, about the size of an ordinary marble. This I evacuated by a small valvular incision. On the 6th the sac was again distended with blood. This time I emptied it and put the finger in a splint and applied pressure. On the 10th I found that she had considerable hæmorrhage from the gums, and there were a number of vibices in various parts of the body.

I gave her some tincture of steel, and she recovered. At this date I made a vaginal examination, and found the uterus occupied by a foetus—thus differentiating the case from extra-uterine pregnancy.

On November 27 she had some uterine hæmorrhage, which lasted six days, her usual duration of menstruation. During the month of January she had another hæmorrhage, which lasted a week.

On February 4 the liquor amnii suddenly escaped in the morning, and in the evening a collapsed cranium was found occupying the partially dilated os uteri; her pains were slight, but she was very ill; her temperature was 104° . On the 5th, 10 A.M., the os was dilating slowly, temperature 103° , and the child was expelled at 4 P.M., temperature $104^{\circ}5$; of course the child was dead, but not particularly decomposed. She had a rather prolonged convalescence, the lochia continuing some six weeks, evidently from delayed involution, but eventually recovered her usual health. She was pregnant about 380 days, thus exceeding the normal duration of gestation by some 100 days. The recurrence of hæmorrhage on November 27, lasting six days, and again in January for a similar period, seems to point to attempts at ordinary menstruation, the child in the womb having no physiological influence, but being regarded merely as a foreign body. The presence of a condition during pregnancy simulating very closely hæmophilia is interesting, indicating that the health of the patient suffered considerably, if not severely, from the abnormal state in which she existed.

I have given these cases in detail as fresh contributions to the subject of Missed Abortion, and I naturally draw upon them to support an attempt at induction, but I wish it to be understood that I do not build any hypothesis upon these cases alone. I have gone over a large number of the cases reported and tried to analyse them, and it is merely for want of time and space that the summaries of the cases are not given.

Any attempt to compare a series of cases of retained ovum, such as are to be found scattered up and down in the medical journals, in order to discover what features in them are common to all, is rendered extremely laborious and disappointing by the manner in which the cases are, as a rule, reported. Frequently they are mentioned in the reports of the proceedings of societies as if they were mere curiosities of obstetric practice without any scientific value ; and even in some more formal reports in the shape of contributions to medical journals, many essential details, such as the patient's age or previous pregnancies, are not unfrequently omitted. A perusal of a considerable number of the reports of cases such as they are leaves a general impression that there is no hint in them as to a common feature or features which may be connected with the cause of the phenomena. A careful examination of a series of the reports given in most detail begins, however, to reveal something common to all amidst very obvious difference which may guide us to a theory of retention.

1. One thing common to all the cases is the death of the ovum, death by disease and without rupture of the membranes, as distinguished from death by violence. This would seem to imply a low vitality of the ovum or mother, or both, in the case of the mother either temporary or permanent. As abortions of what we may call the normal sort are so common, this does not seem to carry us far forward.

2. As to age, the patients vary much, but they are never among the youngest. The youngest pregnant women do not retain dead ova. Dr. Friedrich Roth, of Bamberg, whose paper¹ contains an analysis of many cases, found no one under 28. Mr. Alban Doran records a case² of a patient aged 25, but she had already borne three children, the youngest of whom was $2\frac{1}{2}$ years.

¹ Ueber Retention des abgestorbenen Fœtus in der Gebärmutterhöhle bis zum normalen Schwangerschaftsende : *Deutsches Archiv für klinische Medicin*, Bd. xxiii. 1879.

² *Obstetrical Transactions*, vol. xxvii.

3. The number of previous pregnancies varies greatly, but here again there is a feature which strikes us at once; there is an almost entire absence of primiparæ. Dr. Routh has found three primiparæ in 27 cases which he quotes in the paper just alluded to; but the youngest of these was 34, and the other two were 40. Thus we may conclude that there is an entire absence of young and, presumably, sexually vigorous primiparæ among the subjects of missed abortion.

4. With regard to the history of previous abortions or retentions, there is not a case in which the habit of abortion appeared to be established, and I have not found anywhere recorded a case in which retention occurred more than once.

5. The general state of health of the patient since her last normal pregnancy is hardly ever to be made out from the reports of the cases. In the cases which I had the opportunity of carefully examining as hospital in-patients, there was no organic disease of any kind, merely an atomic condition. In my first case the patient suffered from a chronic disease of the heart, and in one of the in-patients the health appeared to have suffered from prolonged lactation. This was also true in a case reported by Dr. Mackenzie Johnston in the 'American Journal of Obstetrics' for 1874. Excessive lactation might conceivably have some causal relation to retention; it must produce some diminution of sensitiveness in the action and reaction between the mammæ and the other sexual organs, and in this way it might bring about a slowness on the part of the uterus to react to stimuli. It is therefore desirable that the details with regard to recent lactation should be fully given in all recorded cases of retention of the blighted ovum.

6. As regards the uterus itself details are given in many cases as to flexions and chronic deviations from the standard of health. But there is no overwhelmingly frequent recurrence of any one lesion, and those lesions which are described, although they sometimes suggest the cause of the embryonic death, do not appear to bring us nearer to the cause of retention. Liebmann's assumption that chronic endometritis pro-

duces a diminution of the sensitiveness of the uterus to stimuli does not appear to be supported by facts.

7. The point of time in the course of pregnancy at which the ovum ceased to develop varies from the first month to the end of pregnancy. There is a large number of cases of missed abortion, then a series of intermediate cases like that of Mr. Stocks, and finally those cases which are best indicated by the term 'missed labour.' There appears to be a larger number of cases in which the ovum became blighted at from three to four months, but the preponderance is not sufficiently striking to guide us to any conclusion.

8. The length of time the ovum is retained after it ceased to develop also varies to the fullest extent. Ordinarily the ovum is expelled in eight or ten days after its death from disease, or it may be retained a considerably longer time without attracting undue notice. It is not unusual, as we know from ordinary experience, for the process of expulsion of an ovum which has died without any apparent cause to take two or three or four weeks, during which hæmorrhage goes on with more or less severity. In such cases the ovum is being expelled as a foreign body whose presence has become intolerable to the uterus. In most cases of injury from violence, such as attempts to produce abortion by direct physical interference with the ovum, probably the phenomena are somewhat different, the contractions of the uterus from stimulation being the primary factor and the foetal structures being adherent to the uterus. But this class of case we can disregard for the present. We must observe here, then, that it is only the cases in which the ovum remains in the uterus two or three or more months that attract attention as phenomenal, while a shorter period of retention is rather the rule than the exception, and this period seems to vary according to some unascertained conditions peculiar to each individual. In the great majority of cases the ovum does not remain after the time corresponding to the full term of pregnancy. If this period is passed, there seems to be no reason why the ovum should ever be expelled; and that it sometimes never is

expelled the cases in which retention of the ovum has been revealed for the first time only by post-mortem examination abundantly proves. According to the length of time over which the retention extends, the cases might be arranged in three divisions: (1) those in which expulsion occurs spontaneously before the full term of pregnancy; (2) those in which expulsion takes place at or about the full period of pregnancy; and (3) those in which the ovum is retained beyond the full term of pregnancy. An examination of the cases, keeping this classification in view, proves that an overwhelming majority of the genuine cases of retention belong to the second division. A very well reported typical case of this kind forms the subject of a short original paper by Dr. Pelzer in the '*Centralblatt für Gynäkologie*,' No. 9, 1885.

9. The mode of termination of the retention requires careful attention. It is very seldom necessary to interfere manually in order to complete the expulsion. The separation of the ovum is evidently almost or altogether complete, as is shown by the rare occurrence of retention of the placenta or of hæmorrhage. In a large number of cases the expulsion is apparently spontaneous. In others the slight interference of vaginal examination is sufficient to determine the expulsive efforts, as in the first of Dr. Chenevière's cases. It would seem as if there was a kind of equilibrium between the retentive and expulsive forces, and that this equilibrium could be readily upset by any influence capable of slightly increasing the force of the uterine contractions.

10. The condition of the fœtus and other portions of the ovum has received much attention; it has been the subject of a great deal of description and of many drawings. It might conceivably be a matter of importance from the medico-legal standpoint: as there is not even a predominance of any one kind of change in the blighted ovum, an examination of the anatomical structure of the ovum throws no light on the cause of its retention. There is a general consensus that the membranes must remain unruptured, and that putrefaction of the tissues is of very rare occurrence. The fœtus is sometimes

described as if preserved in spirit of wine, as mummified or macerated ; it is often absorbed all but the bones, or the skeleton is found imbedded in the placenta like a fossil on a clay bed. Sometimes the ovum is fairly well preserved, but adherent to or imbedded in the walls of the uterus. None of the mere anatomical changes gives us much assistance in getting at the cause of the retention ; they are merely obvious enough results of the retention of the ovum blighted at one or other stage of its development. The method of expulsion of the less mature ova and the appearance they present prove that the retention is not due to an inflammatory adhesion, but to some other cause.

When we come to closely examine the apparently relevant features of a case of retention in the hope of getting at the cause of the phenomenon, we find we have to reckon with certain unknown factors. The regular periodicity of normal menstruation and the fixed period of utero-gestation in the human female we must postulate as we do the law of gravitation in a problem in physics. A healthy adult woman menstruates monthly, and a pregnant woman carries the foetus in utero nine months. That is the law, behind which we need not try to penetrate. Within this law, and keeping in mind the phenomena of apparent exceptions, we may perhaps formulate a theory of missed abortion.

The presence of a living ovum in the uterus inhibits more or less completely the processes which we call menstruation. It does not completely prevent the recurrence of the *status menstrualis*, the higher blood-pressure, and awakened innervation of the sexual apparatus ; but it greatly diminishes its intensity, rendering it in many women almost or altogether imperceptible when carefully looked for during pregnancy. The presence of the developing ovum does not completely stop, but it renders comparatively feeble and harmless the rhythmical contractions of the uterus, which would otherwise during the *status menstrualis* expel the ovum. We are also familiar with the class of case in which the degree of inhibition is comparatively slight, the characteristic hæmorrhage of

menstruation actually occurring in diminished amount, while the livelier contractions of the uterus at the time corresponding to the menstrual periods threaten or result in abortion.

When the ovum dies it becomes a foreign body. The blood-supply to the uterus which is characteristic of pregnancy is shut off, the ovum becomes separated more or less from its attachment to the uterus, the inhibitory influence is at an end, and the foreign body is expelled in the course of a few days. From this rule of rapid expulsion we have a finely graduated series of exceptions, until we reach the rare cases in which the dead ovum is allowed to remain in the uterus for months or indefinitely. The extreme cases appear to differ from the less extreme only in this respect, that the inhibitory influence exercised by the ovum in utero passes more slowly away, and the sensitiveness, as shown in the reflex response to stimuli, more slowly returns. The longest retention is a matter of degree, not the effect of a different cause. The question then is, In what class of case should we expect phenomenally long retention? If we could deaden the sensitiveness of the reflex nervous apparatus so that the presence of a foreign body in the uterus could be tolerated, and if we could lessen the aggressive activity with which the other portions of the internal sexual organs perform their functions, we should have a concomitance of the conditions which would have retention of the ovum as their natural result.

Now if we examine critically the typical cases of retention we find evidence creating a strong presumption that these conditions have been fulfilled. We find among the women who retain their ova none of the youngest and most vigorous animals, with the sexual apparatus in its pristine sensitive condition. We find that influences have been at work which might presumably deaden the reflex response to stimuli and permit the preponderance of the retentive over the expulsive forces. Such influences are previous parturition, prolonged lactation, and all that is implied in bringing up a family in the operative rank of life in a city. That the vitality of the ovum itself was not originally of the highest

degree seems to be indicated by its death *in utero* without apparent cause, and the absence, which appears to be constant in the cases of early arrest, of the more aggressive symptoms of pregnancy.

According to this hypothesis we should expect the expulsive forces to assert themselves at the menstrual periods and try to cast off the foreign body. The inhibition remains only because of the feebleness of the opposing forces. We find this is so. In many of the cases reported there was an effort at expulsion on one or more occasions, obviously corresponding to the menstrual periods, and in the cases in which the ovum was expelled spontaneously before the full term of pregnancy we see the triumph of the awakened forces during the *status menstrualis*.

But just as in the popular imagination every fifth wave in a rising tide is a specially large one, so every tenth wave of the menstrual state in the pregnant human female is irresistibly strong, and puts an end to the gestation. This specially high development in the expulsive forces at a certain period is implanted in the human race, and its power is seen in the cases of expulsion of retained ovum, even though the ovum may have developed no further than the first or second month. It is expelled, as a rule, with most of the usual phenomena of labour. In almost every case where it is not actually expelled at full term, a distinct effort is made to cast it off. If the nerve-mechanism is so dulled that this effort fails at the time corresponding to full term then there is no other supreme occasion in the future, and there is no reason why the retention should not become permanent if the uterus is not interfered with, or if the os remains closed and the membranes intact. In all the cases quoted by Routh and others in which the ovum was retained for years, the discovery of the retention was made only on post-mortem examination. About the only exceptions to the post-mortem discovery of this permanent retention are those cases in which the pregnancy had been arrested at a comparatively late period, and the foetal bones had given rise to secondary complications requiring their extraction

by the surgeon. One very instructive exception is mentioned by Dr. Matthews Duncan, which I must quote from memory. It is the case of a young cow which was attacked by rinderpest while pregnant. It escaped with its life in a very wretched condition, but no offspring ever appeared. The animal, from being devoted to breeding purposes, was sent to be fed up with a view to another destiny. While undergoing the process of fattening the cow one day expelled a mummified foetus which must have been about two years in the uterus. Dr. Matthews Duncan attributes the expulsion to the mere mechanical action of the fattening ; but is it not probably more in accordance with the physiological facts of retention to attribute the expulsion in this case to the increased vigour of the animal, combined, perhaps, if we knew all the facts, with the onset of the periodic special activity of the sexual organs ?

Shortly stated, then, this explanation of missed abortion amounts to this : In a certain number of cases in which the ovum has died from disease, not by violence, the inhibitory influence usually exercised by the developing ovum is continued so as to permit the dead ovum to resist the increased tendency to uterine action occurring at the menstrual periods, and sometimes even of the still greater activity of the period corresponding to the full term of pregnancy ; and the persistence of this inhibitory power occurs only in women in whom the reflex activity has been rendered duller than normal owing to primary deficiency of endowment, to parturition, to prolonged lactation, or to some similar depressing influences acting upon the nervous system generally, but especially upon the nerve-supply of the internal sexual organs.

About the physiological interest of this subject there can be no difference of opinion.

Some who have reported cases with remarks have called attention to a possible medico-legal bearing of 'missed abortion' on legitimacy or questions of conjugal fidelity. It is well to keep this in mind, but it would be easy to exaggerate its importance. No actual case has, as far as my reading goes, ever arisen ; one suppositious case, put by Dr. Johns, of

Dublin, has been mistranslated into an actual case, and that is the nearest approach to a case in point that I have seen reported in any home or foreign medical journal.

Dr. EDIS thought that an exhaustive paper like the one just read could not fairly be discussed in the short time at the Society's disposal, and suggested, therefore, that no discussion upon it be raised.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, APRIL 27, 1887.

DR. GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT : 23 Fellows, 2 Visitors.

A special letter of apology was read from Mr. Lawson Tait for not being present.

The following were elected Fellows of the Society:—Dr. G. H. Burford; Dr. A. Clarke; Dr. A. Jamieson; Dr. M. McCrimmon; Dr. A. P. Woodforde; Dr. A. W. Thomas; Dr. Black; Dr. W. K. McMordie; Dr. Ingleby-Mackenzie.

The following was proposed for election:—Dr. F. J. Dewes, London.

The PRESIDENT said: Gentlemen,—I cannot allow the business of this meeting to be entered upon without first calling your attention to the very great loss which this Society has sustained by the very sudden and unexpected death of our first President. Only a short fortnight ago Dr. Meadows was amongst us, taking part in the work of the evening apparently in all his usual vigour of mind and body, and within that time it has been the melancholy duty of some of us to follow his body to its last resting-place. Dr. Meadows was a man who, by his amiable qualities, had endeared himself to many of us, and who, for his abilities, was looked up to as an ornament of our body. The very able address which he delivered to us at our first meeting, in which he set forth so clearly the objects of our Society, and the no less able manner in which he summed up the work of our first year,

marked him as a man peculiarly suited for the post which was so unanimously assigned to him. Nor could we fail to be struck with his extraordinary aptitude for the position he occupied. The admirable manner in which he discharged the duties of this chair, the courtesy which every one met with at his hands, the acumen with which he singled out the important points of a paper or discussion, made a deep impression upon myself, and when, through your kindness, I was placed in this responsible position, his was the conduct which I set up before me as the model to follow. Honoured by his fellow-citizens in his appointment as a Justice of the Peace, by his professional brethren, as witnessed by the fact that he was an Honorary Fellow of several Societies, his professional abilities being recognised both at home and abroad, and honoured still more by a wide circle of patients whose confidence he had secured, Dr. Meadows was a man whom this Society could ill afford to lose. There are those who, gifted with more power of expression and more elegance of language, can convey to your minds a just view of his qualities as a man and his capabilities as a physician; but I felt that I should be doing violence to my own feelings did I not give utterance to these few words. It only remains for me to propose that a resolution of sincere sympathy and condolence with the bereaved family should be passed by this Society.

Dr. EDIS seconded the President's proposal that a vote of sympathy from the Society should be forwarded to Mrs. and Miss Meadows. It was needless to say anything to commend this to the Fellows. Dr. Meadows had been so intimately associated with the prosperity of this Society, not only as its first President, but even to within a few days of his lamented decease, as a most active contributor to its working and welfare, that he (Dr. Edis) felt sure the wish was unanimous to pay a just tribute of respect to him who had been so suddenly removed from our ranks.

Dr. HEYWOOD SMITH: Sir, I trust you will allow me to say a few words in support of the resolution that you have proposed. As I was associated with Dr. Meadows for about

nine or ten years at the Hospital for Women, I naturally felt the shock of his death, and the scene of last Saturday is one that none of us will easily forget. When, owing to the unfortunate disagreement with the General Committee of that hospital, which led to the resignation of the majority of the Staff, I had, apparently, to choose between standing by my father or the profession, and I chose the former, Dr. Meadows, recognising the dilemma in which I was placed, gave me the credit of doing what I considered to be my duty, and ever afterwards treated me with courtesy and kindness. When, in the summer of 1884, I drew up a plan for the organisation of this Society, Dr. Meadows (with whom I had previously conversed on the matter) was one of the first to whom I submitted the scheme, and his consenting to be nominated as the first President of the Society contributed in no small degree to the unparalleled success which attended its establishment. The interest of these facts has prompted me to rise and say these few words in support of your resolution.

The resolution was then put to the meeting and adopted unanimously.

Dr. BARNES rose, under the influence of deep emotion, to express what he felt sure must be the paramount sense of the meeting, that the Society should adjourn without attempting to enter upon scientific discussion. They could not more fitly mark their respect for their late President, their sense of the loss to the Society for which he had done so much, and their sympathy with his family. Dr. Meadows, it was needless to tell the Society, had earned honourable distinction in the medical world ; but he also displayed remarkable ability in the conduct of business. He (Dr. Barnes) had been intimately associated with the work of the Obstetrical Society from its foundation. Dr. Meadows had served as Secretary whilst he was President ; and he had no hesitation in saying that Dr. Meadows was the best Secretary that Society ever had. It was greatly due to his zeal and ability that the great exhibition of instruments held at the Royal College of Physicians proved so eminent a success, and accomplished so

much in giving the Society a place in the scientific world. Dr. Barnes then moved the adjournment of the meeting.

Dr. ROUTH said it was a melancholy satisfaction to second the proposition of his friend Dr. Barnes. The Society had lost in Dr. Meadows a perfect gentleman, a wise physician, and a conscientious Christian. It was only on the last night of meeting of the Society that he (Dr. Routh) had sat by his side and heard him take part in an interesting discussion, in which he imparted, as he always did, useful and practical information to them all. Now he was lost to the Society. They could no longer hear his voice among them, but his works would outlive him, and perhaps be more truly valued. He (Dr. Routh) could have referred to Dr. Meadows's known courtesy, kind deportment, generous hospitality, and the gracious and wise manner in which he had conducted their business while President of this Society, and re-echo all Dr. Barnes's eloquent eulogy. But that was not needed. The Fellows of the Society knew him well, and appreciated his worth. They could only now grieve and heartily sympathise with his wife and daughter, and mourn over the loss of a valued friend, and adjourn the meeting in respect to the memory of one who, whilst among them, had proved himself not only a wise physician but a great man.

The meeting then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, MAY 11, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT, IN
THE CHAIR.

PRESENT: 31 Fellows, 5 Visitors.

The following was elected a Fellow of the Society:
Dr. Dewes.

The following were proposed for election: Dr. M. A. Mendes de Léon, Amsterdam; Dr. Robert Bruce, London.

Dr. FANCOURT BARNES showed a hairpin, together with five drachms of phosphatic stone deposited upon it, which he had removed from a single girl, aged 25 years. He had been called to see her by Dr. Arthur Cross because she had been suffering for some weeks from severe cystitis. On examination Dr. Fancourt Barnes found the orifice of the vagina completely occluded by a firm hymen which so closely surrounded the orifice of the urethra that it was only when the patient had been placed under chloroform that he found it possible to pass a sound into the vagina between the urethra and margin of the hymen. Thinking her cystitis had possibly arisen from the convection into the bladder of retained vaginal secretions, he divided the hymen and ordered the bladder to be washed out. A few weeks later, as the cystitis was no better, Dr. Cross asked him to take the patient into the hospital. After she had been some weeks in the Chelsea Hospital for Women, Dr. Peck, the resident medical officer, sounded the bladder and found a stone. On April 16, 1887,

Dr. Fancourt Barnes, having previously examined through the urethra, opened the bladder and removed a hairpin encrusted with a large phosphatic stone weighing over five drachms. The patient's temperature had ranged from normal to 102° F. before the operation, since when it had been normal. The patient had evidently let the hairpin slip into the bladder whilst masturbating with it. She denied, however, doing any such thing, and stated that it must have slipped in whilst she was getting out of bed.

Dr. MANSELL-MOULLIN pointed out that there was no difficulty in dilating the urethra and extracting a calculus through it, but that permanent incontinence and want of control frequently followed the operation. He had seen several such disastrous cases, and concurred in the treatment adopted in the present instance.

Dr. HEYWOOD SMITH wished to ask Dr. Barnes whether he stitched up the incision into the bladder or left it open in view of the cystitis; also, as the stone was so friable, whether it would not have been possible to break it up and wash out the *débris per urethram*. With regard to what Dr. Grigg had said, was not it easier to pass stitches in a longitudinal incision than when it was transverse?

Mr. LAWSON TAIT said that two points rise in special prominence in connection with this interesting case. The first was that already indicated by the President—Why were hairpins used by women for such improper purposes? It was twenty-seven years since he had seen Mr. Lynn remove a hairpin from the female bladder, and that case was followed by a small crop of others, so that Mr. Lynn constructed a special instrument for removing them, and it looked like—if Mr. Tait's recollection was not at fault—an early edition of Baudelocque's cephalotribe.

From his own practice Mr. Tait had a small museum of hairpins with calculous concretions, and altogether he had seen some twenty-five to thirty cases. The great bulk of foreign bodies in the female bladder before thirty years of

age were hairpins, and he believed this was due to the fact that women, half asleep, and in a condition of semi-conscious erotic excitement, found them useful. The bulbous end got into the urethra, and in the erythrim was pushed too far. In later life other and larger implements were found as the basis of stones in the female bladder. Of some thirty cases of stone operated on by Mr. Tait he had found only one legitimate calculus—that is, such a calculus as is usually found in the male—without a foreign-body nucleus.

Dr. RUTHERFOORD wished to know if Dr. Fancourt Barnes could give the Society any information as to the length of the time the hairpin had been in the bladder. A rather interesting point was the time taken by the phosphatic deposits to form round any foreign body in the bladder. From experiments made it was shown that they were deposited sooner round metallic bodies than round gum, elastic, or rubber bodies, and that when perfectly pure rubber catheters were left exposed to the action of alkaline urine the india-rubber was in no way affected, whereas French catheters, or metallic ones, were soon corroded and eaten into. This would seem to point to the great importance of always using perfectly pure rubber catheters when it was thought desirable to retain a catheter for some time in the bladder.

Dr. EDIS remarked that where mere exploration of the interior of the bladder was requisite the finger could readily be inserted *per urethram*. Where any foreign body, such as in the present instance, was detected, it was always better to make an incision into the bladder through the vagina, as otherwise incontinence of urine was liable to result.

Dr. FANCOURT BARNES said in reply to Dr. Rutherford he could not say how long the hairpin had been in the patient's bladder, because she denied all knowledge of it. In reply to Dr. Grigg, he said the incision which he made into the bladder was longitudinal. In answer to Dr. Edis, he found the stone too large to remove through the urethra, and further he was of opinion that as the cystitis was of such long standing it was advisable to ensure the most rapid

recovery possible, and that was best done by opening the bladder.

The PRESIDENT exhibited the following specimens:—

1. Two examples of ovarian papilloma obtained from the same patient—a widow lady aged 55. One was a portion of an ovarian tumour of the left side, weighing $6\frac{1}{2}$ lbs., in which the disease was seen to affect the surface; the other was the whole organ, weighing about half an ounce, and in which the papilloma was seen to spring from the surface by a small pedicle. It was not at all uncommon to find papilloma springing from the interior of a cyst-ovarian, or parovarian, but he had never seen an example of this mode of origin. The patient had made a very good recovery.

2. A solid tumour of the left ovary associated with ascites, obtained from a married woman aged 39, the mother of one child. When admitted into the hospital the patient's breathing was so much oppressed that he was obliged to tap her at once of twenty-two pints of fluid. Such had been the pressure exerted on the diaphragm that it was several hours before the lungs regained their freedom of action. There was great œdema of the lower extremities. In two days this œdema had disappeared, but so rapid was the effusion that on the 7th she was nearly as large as before; she had difficulty in lying down, and the heart's action was very much interfered with, and he was obliged to operate without further delay. Twenty pints of fluid were removed. The peritoneum was very much injected, and the slightest amount of sponging caused sanguineous oozing. He therefore very freely washed out the peritoneal cavity, and to avoid the leaving in of any air he left at least a pint of the water in Douglas's pouch to be removed by the drainage tube.

He would be glad if the Society would allow him to submit the specimen to Dr. Sutton for examination. It was now pretty generally assumed that a solid tumour of the ovary associated with ascites was more or less malignant.

In reply to Dr. Fenwick's remarks he would point out

that the sequence of events was as follows : First the formation of the tumour, then the accumulation of fluid in the peritoneal cavity, and finally disturbance of the circulating and respiratory functions, increasing with the pressure. In this case the pulse became firm and steady as soon as the lungs regained their freedom, to give evidence again of disturbance as the fluid reaccumulated.

He was glad to be able to say that so far the progress of the case had been most satisfactory ; the temperature never having exceeded $99^{\circ}2$, and the patient escaping with only a trivial amount of bronchial irritation.

Postscript.—This patient made an excellent recovery ; all symptoms of bronchial irritation disappeared in the course of a week, while the pulse became firm, full, and steady. In the six days during which the drainage tube was left in, four pints of fluid were removed ; at first in quantities of several ounces at a time, and gradually diminishing until it amounted to about one drachm, after an interval of four hours—a sufficiently conclusive answer to the statement that the drainage tube irritates the peritoneum, and is therefore a source of danger.

Dr. BEDFORD FENWICK said : It would be extremely interesting to know what the condition of this patient's heart was, and I venture to ask if any special note was taken, sir, of its strength or weakness. This is the more important not only as regards treatment but in reference also to diagnosis. A large solid tumour is found in the abdomen with considerable ascites. The diagnosis is almost invariably made of malignant growth, and the chances are the case is not touched, or is watched, till the weakness of the patient precludes recovery from a too tardy operation. Now, not once, but many times, I have seen ascites with a solid abdominal mass which was not malignant in its nature, and which ascites completely disappeared when the heart's action was strengthened ; and I would point out this practical point : when ascites takes place from peritoneal mischief, there is rarely any cedema of the lower extremities. When the ascites is caused not by the

abdominal tumour, but by the cardiac feebleness and the consequent *inertia a fronte*, the fluid is effused everywhere from the toes to the diaphragm. Of course, every one knows the presence of a solid tumour will irritate the peritoneum and cause lymph to be effused ; but the point I wish to insist upon is that, before the definite diagnosis of malignant tumour is made, and the case given up as hopeless because there is fluid in the cavity, it should be clearly proved that that fluid is not the result of heart, liver, or kidney mischief, and especially the diseases of the first-named organ.

Mr. LAWSON TAIT showed two specimens of diseased uterine appendages, which illustrated most of the facts already very well known, yet in addition several points of interest.

The first was a patient of 40 years of age, who had been seen by a number of doctors, metropolitan and provincial, all of whom without exception agreed that she was suffering from myoma. With this view Mr. Tait agreed, and he recommended removal of the appendages. That morning he had operated, and found only a small myoma and double pyosalpinx. The patient had never expressed herself as troubled much by pain, but continuous hæmorrhage had been going on for about three years, and had defied every kind of treatment. Every kind of investigation had failed, in divers hands, to arrive at an accurate diagnosis.

Concerning the second specimen much that was interesting could be said in these days when 'boycotting' was the subject of so much discussion. It was known that the British Gynæcological Society had been boycotted by one important medical journal, the 'Lancet.' In that very journal for last Saturday (May 7, 1887) was an article about twenty-five cases of diseased appendages published by Dr. Orthmann, and it seemed as if this was the first glimpse that the 'Lancet' had of this important question. It clearly was therefore a misfortune that the 'Lancet' had boycotted the British Gynæcological Society. Previous to last Saturday the 'Lancet' had spoken of all operations on the uterine append-

ages as cases of 'spaying,' and it was well known that the articles on this subject most advocating this objectionable term were from the pen of Dr. John Williams, now President of the Obstetrical Society. It was difficult, therefore, to believe that Dr. John Williams had made an effort to remove the uterine appendages now exhibited some six years ago. He had made an incision about six inches long, and after working about for a long time had been frightened by adhesions. A few weeks ago the specimens had been removed by an incision an inch and a quarter long in about eight minutes. The patient made an easy recovery.

Dr. HEYWOOD SMITH wished to remark after what had passed from Dr. Bedford Fenwick whether a more correct diagnosis would not have been arrived at in this case if the uterine sound had been carefully used: as in many cases of obscure tumours, the question as to their connection or not with the uterus can only be determined by its use.

Mr. A. PHILLIPS HILLS.—Mr. President and Gentlemen: Some time ago Mr. Lawson Tait practically demonstrated a syphon system of drainage for washing out the abdominal cavity after operation. I then asked Mr. Tait if by that means the total abolition of sponges could be effected, as I feared considerable damage was often done to the peritoneal surface by the sponging. His reply was that he was gradually working up to that point, and hoped to be able to reach it. Our President seems in this case to have arrived at that end, or very nearly so, as he found that, owing to hæmorrhage on the application of a sponge, that form of 'cleaning up' was not practicable.

Dr. BEDFORD FENWICK said: There are two practical points about this interesting case upon which I should like to ask Mr. Tait to give us some further information. First, as to the question of diagnosis. It would be interesting to know if the uterine sound was passed at all, and, if so, to what distance it went, because I take it, as the myoma proved to be very small, the sound would probably have only measured

the normal length of canal, and so would have tended to correct the diagnosis made.

Secondly, on the matter of pathology, it would be still more important to know from Mr. Tait if he can give any explanation for the fact which he incidentally mentioned, that there was very little pain experienced or complained of by the patient. We all know that Mr. Tait has laid down this feature of pain, especially pre-menstrual in time, as a cardinal point in the diagnosis of tubal mischief. We all can easily understand, from the pathological changes in these cases, and in such tubes as those we are now examining, that pain must almost necessarily be present. It therefore certainly appears to me the most extraordinary feature of this case that this *pro facto* concomitant symptom is said to have been absent.

On the Various Modes of Treatment of the Worse Cases of Uterine Flexions. By C. H. F. ROUTH, M.D., Fellow of University College, London; Consulting Physician to the Samaritan Free Hospital for Women and Children.

It is a matter of common observation that some twenty years ago, when Dr. Henry Bennett first taught the profession the use of the speculum, the disease then most prevalent among women, or at least most frequently recognised, was the so-called ulceration or abrasion of the cervix uteri. Now, however (and possibly owing to the heavy work women undertake in their desire to emulate men, both in mental as well as manual labour), much debility and neurotic æsthesia has developed in the sex, and the disease which now is most frequent among them, and which causes them most trouble, is flexion or version of the womb.

I. It is necessary that I should here speak *in primis* of some anatomical and physiological facts to prove the position, and to illustrate the conclusions which I intend to make in this paper. I would wish first to speak of the manner in which the womb is held in position, and I quote from some

observations which I made some years ago (1869) in a paper on Deviations of the Uterus.

A perfectly healthy uterus has its direction slightly backwards and downwards, occupying as nearly as possible the median portion of the pelvis, but nearer rather to the sacral portion. It is kept in this position by a variety of ligaments and membranes. Superiorly as well as inferiorly it is *free*: the former part beneath the peritoneum, the latter in the vagina. It is by its intermediate parts that it is suspended *in situ*. On each side we have the broad ligament enclosing within its folds the ovary, the Fallopian tubes, round ligament, and blood-vessels. These, it should be especially noted, are attached to the body, and not to the fundus. The position, moreover, of these contained bodies is to be noted: the Fallopian tube above, floating by its distal end in the cavity of the abdomen, but giving no support to the organ; the round ligament rather *below* and before it, and the ligament of the ovary below and behind. The folds of the broad ligament, passing on to be attached to the opposed sides of the pelvis, is thus the chief support.

The anterior portion of the uterine body, like the fundus, is free. The distal end of the cervix is also free within the vagina; but the base of the bladder, which extends backwards as far as the uterine cervix, is as intimately connected with it as the attachment to the vagina. At this intermediate space, about one fourth to one-third of an inch, therefore, between the body and vaginal portion of the cervix, the bladder is a point of suspension and attachment.

The posterior attachments are confined to the utero-sacral or Douglas ligaments, which extend from the sacrum to the point of insertion of the vagina into the cervix. But the whole posterior surface of the remaining part, the fundus and body, is free also. There is yet an arrangement by which the uterine organ is kept *in situ*—the so-called pelvic fascia, or sub-peritoneal pelvic or areolar tissue.

The examinations made upon this tissue by Dr. Savage have cleared up many points of dispute in its arrangement.

Intervening between the pelvic viscera is a cellular tissue, resembling in every respect ordinary sub-peritoneal tissue. This dips down loosely between the viscera therein contained, and beneath the peritoneum, and assists to retain them *in situ*, and also supports the iliac and other branches going to these viscera.

This tissue may be said to fill up a cavity formed by the folds of peritoneum superiorly, as it covers the upper part of rectum, bladder, and uterus, and is reflected to the sides of the pelvis and the upper part of the lower portions of these same organs not covered by peritoneum.

The accuracy of these conclusions was proved by a series of well-formulated experiments performed upon a dead body in Paris by Dr. Savage. The uterus was drawn through the vagina by means of a vulsellum attached to its neck. This evulsion was continued until it seemed to threaten some physical damage to the structures, which were now more strongly opposing its further descent. Then it was found that the *utero-sacral* ligaments diverged and became straight, from being forcibly stretched between their attachments. The *round* ligament was curved round, but was not put on the stretch in following its uterine attachments. In fact, there was *no strain* whatever on either the broad or round ligament. But when the utero-sacral ligaments were divided transversely, the uterus yielded suddenly about an inch. It was now kept in this position by the sub-peritoneal pelvic tissue (particularly where it surrounds the uterine blood-vessels, at which point it is strengthened by additional trabecular filaments which support the vessels), preventing any sudden strain incidental on the movements of the body, especially in cases of uterine enlargement. Complete prolapsus was only effected after the yielding of the pelvic reflections of the broad ligaments. This occurred from behind forwards, the round ligaments being the last put on stretch. (Plate xi., p. 67, Savage.)

This utero-pelvic tissue is eminently fibro-elastic (muscular in many parts of it), and is an integral part of the pelvic-

supporting uterine system. The little power which the round ligament has in keeping the uterus in position is thus proved. Moreover, it is also made clear from its attachments before noted, for all the uterine ligaments are attached to the body of the uterus, the fundus being perfectly free. The *round* ligament is rather below and before the Fallopian tubes, but this attachment, as has been well pointed out by Dr. Alexander, may be materially altered by one of two occurrences. The fundus may either so enlarge upwards that it grows away from the round ligaments, as in ordinary pregnancy, or the round ligaments may acquire a new attachment to the body of the uterus by their long application thereto, and so the fundus receives from it no support whatever.

Of the immense resilient, elastic, upward force of this utero-pelvic tissue I had once an opportunity of judging in the living subject. It was in the case of a woman upon whom I was operating for complete prolapse of the uterus and prolongation of the cervix. Having separated the cervix from part of its vaginal attachments, I was removing the neck with the *écraseur*, and did so without any hæmorrhage, when I found I had accidentally included a portion of Douglas's pouch. I had no sooner removed the *écraseur* and the included portion of the cervix, when to my surprise and annoyance the uterus was pulled upwards by some force and out of my reach, and I had some difficulty in pulling it down and securing it. The weight, therefore, of the prolapsed and hypertrophied parts of the vagina as well as cervix must have had a great deal to do in causing the prolapse of the uterus, while the resilient elasticity of the utero-pelvic tissue was forcibly demonstrated.

2. Now it is a noteworthy fact that in *all* cases of flexion of the uterus there must be a certain amount of prolapse, and therefore giving way of the uterine ligaments. Very lately indeed an American writer, Dr. Hardon, has endeavoured to show that all cures of flexions must depend on overcoming first the prolapse ('*Atalanta Medical and Surgical Journal*': '*Medical Press and Circular*,' 1886, ii. 385). I agree with the editor of the

'Medical Press' that the treatment recommended to overcome this prolapse, with the daily visits essential to carry it out, is altogether to be discouraged on social grounds ; but that prolapse always precedes flexions of the uterus I firmly believe. Indeed, if it were not so, then, as the vaginal posterior *cul de sac* in a healthy woman is far too short to allow it, no advantage could be derived by a Hodge pessary to keep it in position, because it would necessarily impinge upon the bent portion of the uterus, and not support the uterus or rectify the flexion at all.

3. (a) But here I wish to lay especial stress on a condition which I believe to be the *invariable concomitant* of painful flexions, a condition which, if fully developed, renders a woman most miserable till her very life itself is unbearable. I mean the existence of congestion of the superior portion of the uterus, but especially of that part of it which we specify as the Fundus.

In my paper (published in the twelfth volume of the 'Obstetrical Transactions') on 'Fundal Endometritis' I fully discussed the serious and painful consequences of this disease. In a subsequent paper, which I read before the British Medical Association at Worcester, on 'Flexions' I pointed out how the coexistence of this disease with flexions aggravated the sufferings of a woman, although fundal endometritis may exist without flexions, while flexions without it or congestion are mostly painless.

(b) But flexions, I believe, will in many cases give rise to fundal endometritis. Whether or not the flexion precludes a free vascular circulation in the fundus, it is certain that that part of the uterus in time becomes congested, if not inflamed. At any rate, the contained secretions assuredly find no proper exit, and so change in quality, become acrid and even acid by long retention, and thus react upon the mucous membrane, giving rise perhaps to ulceration ; and if any escape take place upwards, it may thus lead to peritonitis and death—a form of disease which I described as the fourth variety of fundal endometritis, but which has lately been referred to under

another name. Such are the cases of extension from gonorrhœa upwards by Mr. Doran and others, and which may probably lead to those diseases of the uterine appendages which we have so much reason to be grateful to Mr. Lawson Tait for having first described and taught us to treat. And, as before cursorily remarked, I here feel bound to call into question some of the conclusions drawn by Dr. John Williams in his able paper on the 'Circulation of the Uterus' in the 'Obstetrical Transactions.' He there lays great stress upon the fact that, owing to the frequent anastomoses of its vascular system, the circulation could never be so impeded as to give rise to congestion, and that he had never found congestion or enlargement of the uterus follow flexion. This opinion was not shared by many gynæcologists, notably Dr. Graily Hewitt, and Hermann and Galabin.

(c) But, even admitting this position of Dr. John Williams to be true, if the fundus become inflamed obstruction must take place in the inflamed parts; and even admitting that the congestion could be by the arrangement of the vessels reduced to a minimum, yet it could not prevent the retention of acrid matters within the fundal cavity, and inflammation there which might, and he was sure did sometimes, assume the dangerous proportions before referred to.

(d) But not only is the fundus of the uterus supplied with a separate vascular arrangement from the body and cervix, but its nervous arrangement is equally distinct and unusually extensive in its plexus and relations. The nervous supply comes directly from the ovary, and this ovarian branch itself comes directly from the renal plexus, which covers the kidney and accompanies the spermatic artery. When about two and a half inches from the gland, it separates from the artery, taking a slightly different course to reach the middle of the body. It then divides into four branches, three of which go to the ovary. The fourth goes to the fundus of the uterus, and divides again into two branches, which supply the anterior and posterior parts of the uterus.

This arrangement thus separates the fundus from the cer-

vix and body of the uterus, which are supplied respectively from the hypogastric plexus and inferior aortic plexus, and have not the same extensive relations with the sympathetic.

The renal plexus, as is well known, has direct relations with the great splanchnic ganglia, and thus the fundus uteri has far more intimate and complex relations with the female frame than either the body or cervix uteri. It will thus be obvious how disease, inflammatory or congestive, of the fundus will exert a far more serious influence on a female, than similar disease in other parts of the uterus. Now physiological as well as pathological researches prove that the growth of the fundus may therefore take place altogether irrespective of the growth of body, but especially of cervix. This is the case in pregnancy, the fundus enlarging subsequently, and the cervix last, about the fifth month of pregnancy. The diagram I show you illustrates this, and also the altered position of the Fallopian tubes, ovary, and round ligament, which appears to be much lower, and which last cannot, therefore, in a case of congestion and its natural sequelæ, enlargement of the fundus upwards and become top-heavy, exert any supporting power over a displacement, or at least can only do so to a very limited degree; and Dr. Graily Hewitt, you are aware, places pregnancy as a common cause of flexions in married females.

4. These preliminaries being established, what are the indications given to ensure a successful treatment of a flexion? These indications are three: 1. Correct the prolapse, and in such a way as not to produce pain. 2. Relieve the congestion or inflammation of the uterus generally, but of the fundus in particular. 3. Allow free exit to all irritating contents of the uterus, especially those at the fundus.

(1) Correct the prolapse, and in such a way as not to produce pain.—Clearly this indication cannot be fulfilled by anything like an intra-uterine stem *per se*. The stem might keep a retroverted organ straight, but it would descend with the prolapsus. Moreover, unless the flexion be very great, so that the vaginal floor supported the stem, it would either fall

out or be expelled. Here, therefore, we need something after the fashion of a Hodge pessary.

But if we use a Hodge, and there is much tenderness at the fundus (as is generally expressed by a patient the moment we pass the finger in and touch the fundus), it will give rise to such pain and discomfort, if not to increased inflammation, that it will be soon obligatory to remove it. Again, if the Hodge be too short, it will give no support to the retroflected organ. If it be too long, by unduly shortening the vaginal *cul de sac*, it will raise the uterus, but not correct the flexion, and so will necessarily increase both the pain and inflammation which may be present. Clearly, therefore, if we can apply also an intra-uterine stem, which will keep the organ straight, but without touching the fundus, we are doing the very best thing we can to keep the uterus in position. But we must also remember that the uterus is an organ which in nature floats freely within the pelvis, and we must allow for this free movement from side to side; otherwise, if we fix the uterus in a straight position and do not allow of this motion, whenever the patient experiences a sudden jerk upon her body the uterus itself is jerked, and discomfort, which may be severe, is the result. Either, therefore, we must apply both a Hodge and intra-uterine pessary, which are distinct, or, if conjoined, each must be united by a ball-and-socket joint. Such instruments I will presently describe. At the same time I am free to admit that Dr. Alexander's and Drs. Imlach's and Heywood Smith's plans fulfil these indications.

(2) The second indication is to relieve the congestion generally of the uterus, and fundal portion especially. Now I believe all these gentlemen attend to this preliminary measure, although I do not think they any of them lay sufficient stress upon this treatment as an essential *in primis*. I do—not only by local depletion, absorptives local and general, but especially in my endeavours to relieve the pain of the fundal disease by creosote or carbolic acid or iodine, &c., locally applied. But all these details I have given elsewhere, and they are so well known they need not detain us further. I

may here, however, recall to your remembrance this well-known circumstance. An intra-uterine stem often provokes a considerable flow of blood from the uterus—sometimes, indeed, a menorrhagia—and the thicker the stem the more effective the drain induced. This is the most effectual way of relieving a non-involuted or congested ovary. Neither the method, however, adopted by Dr. Heywood Smith nor that of Dr. Imlach fulfils this indication. That of Dr. Alexander, who also uses an intra-uterine stem, does.

(3) The third indication is to afford a free exit to all irritating uterine, especially fundal, contents. Although in some cases, because the canal is capacious, even in cases of flexion, there is a comparatively free exit, still in by far the greatest number of cases the very flexion offers an effective impediment which often induces, during the periods before it is overcome, intense pain. Now here again, in a measure, Messrs. Heywood Smith, Alexander, and Imlach facilitate by their operations (because the uterine canal is straightened) this exit. Dr. Alexander does it, however, more effectually because he uses the intra-uterine pessary also. Now it is a fact that such pessaries, by not only keeping the cavity straight, but dilated, greatly facilitate the expulsion of its contents. It is in this way that many cases of dysmenorrhœa become painless. We know how dangerous it is to inject the uterus if we do not provide also a free exit to the injected contents. Peritonitis and death has been the result. But these several points I have already discussed in my paper in the 'Obstetrical Transactions' on Menorrhagia, where I detailed several cases treated by iodine or iron injections (agreeably to a suggestion made and also carried out by my colleague, Dr. Savage, at the Samaritan Hospital), by the preliminary use of tents. I have seen the most terrible pain result by the mere injection of hot water in the practice of another medical man where this precaution was omitted. Possibly it may hereafter be found that those cases of vaginitis or gonorrhœa which produce pyosalpingitis, do so because, not having been properly treated, tumefaction or congestion of the uterine

canal has occurred, so that this free exit has also been accidentally impeded ; whereas in other cases, where proper treatment has been employed and such obstruction has not occurred concurrently, no such unfortunate consequences have resulted. At least the suggestion is extremely probable. It follows, therefore, that in the treatment of all these cases an intra-uterine pessary is mostly, if not a *sine quâ non*, at least one of the most important accessories we can employ. But in their employment there is one important caution I wish to give most emphatically. We should take care, whatever we do, that the intra-uterine stem shall in no way touch or impinge upon the fundus. If it does it cannot be borne ; it will certainly produce serious mischief, perhaps abscess in the ovary—at any rate, increase the inflammations locally and generally. For this reason every uterine cavity should be accurately measured, and at least a quarter of an inch be allowed between the distal end of the stem and the fundus. In many cases where the flexion is low down one third to half an inch may be judiciously allowed.

5. It would take too much time to describe all the different instruments that have been devised with a view to fulfil these several indications, but I shall speak only of generic varieties.

(1) *The ordinary Hodge*.—Mention of this variety is all that is necessary in its order. It is too well known to require comment. Moreover, this portion of the subject has already been brought before the notice of the Society by Dr. Fitzpatrick in an able paper on the Use and Abuse of Pessaries, and fully discussed. I show you only Dr. Priestley's pessary, which is useful because easily applicable by patients themselves.

(2) *Intra-uterine stems*, of which we have three general sub-varieties : *a*, the *solid*, including glass, ebonite, metallic, galvanic, and diverging ; *b*, the indiarubber, which include Dr. Greenhalgh's, Dr. Squarey's, and my own—all of which vary in the means adopted to keep them *in situ*. Dr. Greenhalgh's is perhaps the most difficult of application, but once well

fixed holds well. Dr. Squarey's almost invariably comes out, because of the weakness of the retaining bulbous arrangement. Mine is, I think, the easiest applied, and frequently the easiest retained ; *c*, the *spring pessary*, which once applied (which may be done without necessarily reducing the uterus, if a painful operation) on a bent sound, will gradually by its resiliency (in cases where the adhesions are not too strong) replace the organ in time. This one also may be supported by a buckle pessary to be shortly noticed.

(3) Those pessaries in which the Hodge and intra-uterine stem are combined in one instrument.—Two of these are well known in the profession, (*a*) the late Sir James Simpson's, now discarded ; (*b*) our late lamented friend's, Dr. Meadows ; and (*c*) my own, the *buckle pessary*, in three forms, which I now show you, and which I prefer.—(*a*) Dr. Simpson's, from its external projections, and because it intensified on the uterus any jerk on the body, often did harm ; but I am bound to say I have seen it used with the utmost comfort to the patient. (*b*) Dr. Meadows's, as modified by Dr. Bantock, which is infinitely better, has done good service, but still I think both require a ball-and-socket joint to prevent a jerk. My own, I humbly submit, is not liable to either of these objections. It should be noted that these several instruments, I mean under the second and third category, are all adapted to keep the uterine canal patent, wide, and straight. The first and third only support the organ and correct prolapse. One thing, however, we must remember is that we cannot expect the same size will suit every woman, be it intra-uterine or any other variety, because the vaginas of different women vary very much in length, so does the length of the uterus, and so does the enlargement of the organ itself. You will see here some of these buckle pessaries, to suit virgins as well as matrons, are of different lengths. Now let me say something about the mode of application. Assuming that I have prepared the organ by allaying the inflammation and kept the patient quiet, I first pass in a tent to dilate the uterus on the first day. On the following day I with-

draw this tent, and having thoroughly washed out the vagina with some antiseptic, I take this instrument which I now hold and grasp with it the stem part of the pessary. Fixing now by a vulsellum the uterus, and drawing it down, I pass in the point into the cavity of the uterus, and then withdrawing all the instruments except the pessary itself, push it upwards and it remains in position—that is to say, if it is long enough for the vagina, and not too long for the uterus, and properly shaped. This pessary I usually advise should be worn for six to eight months, or even a year, before removal; and the rule is, it is done with the greatest comfort, not only does it not often produce any trouble, but on the contrary many patients who before were unable, from pain, to take walking exercise now do so with the greatest comfort and ease. Indeed, my experience in many of them (especially amongst unmarried women) is their unwillingness to part with it at the end of the period when I think it might be advantageously removed. Nor does it necessarily interfere in married women with their conjugal duties, certainly not more than the ordinary Hodge, and, indeed, I remember that in one case where I had applied the instrument in a married woman (believing that it was done with her husband's sanction, but which I afterwards learnt from the wife was not the case) the husband fulfilled all his marital duties and never even found it out.

6. There is one form of uterine flexion attended with great agony sometimes (and here I am treading perhaps rather closely upon Dr. Imlach's special ground)—I mean that variety in which the ovary is prolapsed as well as the uterus displaced. This we know is most frequent on the left side, and is the cause of the greatest possible misery to those unfortunate, especially if married, women who labour under the affliction. In a few of these cases I have found that the utmost comfort is obtained by their wearing a modified form of this buckle pessary, such as I show you in the diagram, where the Hodge portion of the pessary is superiorly deficient on one side. I have found, so modified, it may be worn with the greatest comfort. I presume it is partly because the

uterus is raised, and that the ovary moving in a larger space is not so frequently touched. But there are, I am prepared to admit, other cases in which even this measure has altogether failed and it became a question what was to be done, whether in fact the ovary should not be removed so as to give some sort of relief to the woman. Fortunately, however, I have found that in several of these cases if you have a buckle pessary similar to the one I now show you, by which the uterus is not only pushed as if it were to the right side, but in which the lower end of the Hodge portion of it is notched so as to rest against the left ascending ramus of the ischium, the ovary is completely isolated and free, all pain disappears, and the patient is in the greatest possible ease. Such a case I can now relate to you. It was the case of a married woman about 35, who was labouring under complete retroflexion. The left ovary was prolapsed, projected considerably below the cervix uteri. It was very tender when touched, and much swollen. As there had been also, moreover, a certain amount of rupture of the perinæum, there was scarcely any support to the uterus, which came down within two inches of the vulva. Her life was miserable, for it was an active one, and she was withal a public speaker amongst the poor, and it became imperative that something should be done. For the first year I applied an ordinary buckle pessary, which gave her all the needed support, and enabled her to carry on her duties without interruption and with great comfort. Subsequently I removed it and allowed it to remain out for some time, when she unfortunately went into the country, was very much shaken in some public conveyance, caught a violent cold, and was laid up for over a month. She would have been compelled at the end of this time to seek some other occupation, which I am sure would have been utterly distasteful to her. It, therefore, occurred to me to apply a modified buckle pessary of the kind I am now pointing to you. I found it relieved her entirely, and that lady now goes about, fulfils all her occupations with the greatest ease, no pain, no discomfort, and, although a married woman, the instrument

does not appear in any way to interfere with her conjugal duties.

The following case is another in which a patient was prevented from walking so that her life was rendered miserable. A young lady, aged 16. The earlier particulars were given by a foreign physician who treated her. 'She originally was labouring under anæmia and chlorosis, but had recovered well under appropriate treatment. A month later, after great exertions and exposure, she had severe pains in the legs. The muscles were greatly swollen in them, and tonic spasms occurred also, accompanied with hyperæsthesia. These spasms would last for hours. She was treated by local measures and strong narcotics. Eventually the case got much better so far as pain was concerned, but clubfoot (*sic* spasmodic) now came on on the right side. This was treated by plaster-of-Paris bandages, which were applied under chloroform. The tonic spasms continued while she was under the influence of chloroform. Epileptic convulsions appeared with severe vomiting, and headache continued for a week afterwards. Subsequently (*i.e.* about two or three months afterwards, although she had become better in the meanwhile) the tonic spasms became so violent that a second plaster-of-Paris bandage had to be applied, and cold frictions. She unfortunately was seized at this stage with bronchitis, but this yielded also ultimately to remedies. She was examined *per vaginam* at this period, and it was found that she had retroflexion and tenderness in the ovary, especially marked during the period. She got better in a month, and when the bandages were removed the patient could sit up and walk with crutches, but very badly and only when she was supported all the time.' Such was the history given to me. There was intense dysmenorrhœa when she came under my care. The left ovary was rather large and prolapsed, the fundus intensely painful, as I satisfied myself both by external and by vaginal examination, and by the sound, which was followed by blood. There was also intense backache, both between the scapulæ and over the

sacrum. Counter-irritation, local depletion, carbolic acid, and creosote were applied internally to the fundus. When the irritation had subsided I applied a sea-tangle one day and a buckle pessary the next, taking care that the internal stem in no way touched the fundus. One little drawback occurred at the outset which delayed the cure, for the first instrument which I placed in was too short, so that it fell out; but the second one which I then applied has remained in ever since, and the violent cramps, spasms, and everything, have passed off, except that she is a little pained still, but to a very trifling degree, during the periods, and that occasionally she has had slight cramps (but mostly from indigestion), and that there is occasionally some irritation of the bladder. But she is enabled to walk about, visit friends, and enjoy life. The other day she went to a ball and danced every dance till 3 A.M., and was in no way fatigued or distressed thereby on the following day.

7. I shall be asked, and very properly, Is there no danger in using these pessaries? We every now and then hear of abscesses and serious troubles following their use. Does this not occur to me also? On the lines laid down I should answer in the negative.

Sometimes patients have been imprudent and most anxious to leave before I gave them permission. Ten days is the shortest period which I think a woman should be kept under observation before allowed to go out, and exercise must be first adopted with caution. If there be the slightest pain it should be removed, and after a time, when the cause has been discovered, whether from fault in length or breadth, in either uterine or vaginal canals, it should be replaced. Such accidents have occurred to me, but have not been serious. Again, the most strict regard should be observed both to cleanliness and antiseptics. Injections of iodine or carbolic acid should be specially attended to. In one case I met with several troubles, in consequence of neglect on the part of the nurse and the patient herself. I am not aware of any case of abscess having occurred to me from *this* method of treatment.

The use of the hysterotome, when followed by the use of stems, I have seen produce abscess, and I have heard death has occasionally followed their use, so that I have quite given up the conjunction of these two means. But this I know, the pain, the discomfort, the bearing down, the backache, occasionally the sickness, the intense dysmenorrhea, and pain in one or both legs, especially the left, and the general inability of progression, except with pain—in fact, the general invalidism, often with long-protracted sterility—all have yielded, and a life of comfort and happiness has resulted, often blessed with children. In a few cases there has been immense relief, but not a complete recovery, and in some no pregnancy has followed; but, nevertheless, enough has been done to render the patient very much more at ease, and to make the patients very grateful that they have been so treated.

This is the medical aspect of the question as I view it, and it is my belief that this plan, if carried out carefully, will suffice to cure many cases without resorting to more serious surgical measures. I am not sure that, even in cases where disease of the uterine appendages has occurred and become quiescent, similar measures may not be successfully adopted, although to attempt it in acute forms would be altogether wrong and useless—this I am bound to admit.

I could multiply cases, and I shall add a few in an appendix. But I now pass on to speak of the more decidedly surgical measures as advised by others.

8. The operation of opening the abdomen with the view of replacing the retroflexed uterus was first, I believe, done by Dr. Heywood Smith, in a case the particulars of which, supplied kindly by himself, I subjoin.

Case of Prolapse and Retroflexion.

S. G. H., æt. 30, married fifteen months; had one child eleven years ago, and had been a widow ten and a half years; was an in-patient at the Hospital for Women from June 11 till August 14, 1880.

Vaginal Examination.—Vagina very capacious, becomes

globular on admission of air. Uterine sound passes upwards, forwards, and very slightly to right, $3\frac{3}{4}$ inches.

June 18.—Vaginal Examination. Patient standing ; womb did not change its position.

June 21.—When up, patient has pain and thinks womb falls ; says womb fell on 18th, and did not return till 20th. (Patient had had all sorts of pessaries and rest, and nothing seemed to relieve her.)

June 24.—Operation, 9.45 A.M. An incision was made in the median line of about $3\frac{1}{2}$ inches close above the pubes. The uterus was lifted up and steadied by a finger in the vagina (Dr. Carter's). A silk suture was then passed through the right edge of the wound, then through the fundus uteri for about $\frac{3}{4}$ inch, and through the left edge of the wound ; then six silk-woven gut sutures were passed one below the silk one, and the others above, the last three being passed with L. Tait's needle. The wound was dressed with thymol gauze, strapping, and binder. Recovered well. Temperature only, for three or four evenings, reached 100° F., and on one occasion only $101^{\circ}2$ F.

(Patient altogether an extremely unsatisfactory person ; said that womb was now too forwards, very fidgety, though, on careful examination, womb never comes down as it used to do, and on patient standing is not too far forwards ; gave us trouble for several years fitting pessaries, &c.)

This operation is an eminently simple one, if abdominal section is to be made at all : the simplest, indeed, of the three surgical procedures mentioned.

This operation, unfortunately performed upon a most disagreeable, fussy personage, was doubtless successful. In any case, I look upon it as the pioneer operation to that of Dr. Imlach's, and feel that much credit is due to Dr. Smith for having imagined it and performed it.

I wish next to make some remarks on Dr. Alexander's method of shortening the round ligaments.

Now I believe that a great deal of credit is due to Dr. Alexander for having called the attention of the profession to

this mode of operation; but at the same time there are some points in connection with it to which I want to call attention.

(1) You will see by reference to the diagram before pointed out to you that in a vast number of cases the enlargement of the womb, prior to retroflexion, takes place, as in pregnancy, in that portion which lies above the Fallopian tubes, and every hypertrophic enlargement of the uterus naturally assumes the same character. When the enlargement takes place inferiorly, as in cases of prolonged cervix with prolapse beyond the vulva, retroflexion or anteflexion is not found. A very heavy organ would necessarily be too heavy a drag upon the ligaments, and, as in Dr. Skene Keith's case (mentioned in our '*Transactions*,' vol. ii. 1886-7, p. 408), they would very soon yield as before the operation.

(2) Dr. Alexander has adopted the bold plan of giving the round ligaments a formation which does not exist in nature. From the experiments which I before quoted of Dr. Savage, it was seen that the round ligaments in their normal physiological functions had no part whatever in keeping the uterus in the position which their attachments would seem to indicate, because when an attempt was made to pull down the uterus by Dr. Savage, the round ligaments were the last of the ligaments which exerted any influence in arresting its evulsion. In the same truthful manner Dr. Alexander himself has stated 'that if, after operation, the uterus is placed in too upright a position by excessive traction on these round ligaments, these will probably yield or fail to unite properly, and slight anteversion may occur.' (*Ibid.* p. 255.)

(3) The uterine attachment of the ligaments is too low down in these cases to allow of much power in these in redressing the flexed organ. This point Dr. Alexander himself very honestly admits, and is, I imagine, the principal reason why he conjoins in the subsequent and after-treatment the use of a galvanic stem. He admits this stem is necessary to prevent the recoil of the uterus, because 'the attachments of the round ligaments to the uterus are displaced towards the cervix, so that they do not control the tendency to recoil.

This displacement,' he continues, 'may occur in either or both of two ways—viz. by the abnormal enlargement of the fundus so that it grows away from the ligaments, or from the ligaments acquiring new attachments to the body of the uterus through their long application thereto.' ('Gynæcological Journal,' vol. i. 1885-6, p. 254.)

(4) And lastly, when there is prolapse to a considerable extent and great relaxation of the ligaments, this operation of shortening them can never be successful; but even in more favourable cases, apart from a uterine stem as an adjunct, and an ordinary Hodge or Zwanke, in some cases it will not succeed.

In justice to Dr. Alexander, it should be stated that his paper, excellent as it is in its diction and precise in its explanation, is also throughout stamped with characteristic honesty. He does not arrogate for the operation more than its legitimate value, and he has indicated himself most of these difficulties. If other surgeons have not been always as fortunate as he has been, in his hands, at least, the operation has been eminently successful. As such it must take its place as a recognised and useful surgical procedure in many cases. With a mortality at *nil*, and the permanent comfort assured to many women who rejoice that it was ever performed upon them, it is a verdict in which we must concur.

Let me also remark that Dr. Alexander's plan has also the same advantage as mine, in that the internal stem, by provoking a discharge, whether of mucus or blood, helps the gradual absorption of a heavy uterus. For it is certain that an internal stem helps materially the disappearance of an uninvolted uterus. I am not sure also that his *galvanic* stem has not another advantage. Electricity reduces, by contraction of the muscular fibres and by setting up absorption in the parenchyma, the size and fibroids of the uterus. The galvanic stem may, therefore, help forwards the cure in a way he has not indicated, and to a much greater degree than generally credited.

In the paper read before this Society by Dr. Alexander,

he gave us the following results of his plan. He had then performed twenty-six operations, and never met with a relapse. In one case only, in which he did not recognise the necessity of the galvanic stem, the flexion still exists, though the version is cured.

Since then he has informed me that he has operated in about sixty or seventy cases, and he had seen only four which were not permanently cured, as far as five years in some of them allow him to judge. In the four failures a manifest reason for the failure existed. He adds that he is not at all afraid of undertaking to cure the flexions of 95 per cent. of those intractable cases where the uterus is capable of reposition by the sound and where the ovaries will rise at the same time. We are promised a long paper, with full particulars, to be read before the American International Congress, to which we may all look forward with much pleasure and interest. At any rate, if his expectations are verified, an operation so curative, with a mortality at *nil*, is no small triumph in gynæcology.

The last method of which I shall speak as a mode for the curative treatment of flexions is known by the crackjaw and very uneuphonious name of oophorrhaphy. With this operation the name of Dr. Imlach is primarily associated. From the paper published in our 'Transactions,' which, so far as it goes, is lucid and logical, I gather that he resorts to it only as a *pis aller*. Herein he concurs entirely with my views, for I hold that neither this nor Dr. Alexander's operation—indeed, I should say the same, in some cases, of many other gynæcological operations—should be adopted until proper medical and instrumental measures have been first tried and failed. Then, once the sanction has been given by a woman and those on whom she depends, let one or other of the operations be performed. Since the publication of that paper Dr. Imlach has been rather severely assailed. It must be so with all innovators. But the interests of science can only be retarded by too much severity. Every innovator must be prepared, however, to meet it, and perhaps an inventor too may be

wanting in worldly prudence. But in the end it will not matter, if it be founded on truth. In time those most opposed often become the most ardent advocates themselves of the innovation, and ultimately, doubtless, it will be so in oophor-rhaphy, practised, as it should be, in properly selected cases.

The views of Dr. Imlach may be succinctly stated as follows. This summary I have prepared from a letter dated by himself from Liverpool, May 7, 1877.

He has notes of about 270 cases, but the records of these are not all tabulated. Twenty of these were treated by oophorrhaphy; forty-four by shortening of the round ligaments; the remainder by modifications of Hodge's pessary.

1. He uses the pessary when there is much pain or trouble with a retro-flexed or -verted uterus. In these cases, he adds, there is generally subinvolution, or adherent and inflamed appendages, or both. In the treatment of the first condition, a Hodge's pessary he finds of great service; but if it fails to afford relief, and this failure is not due to a misfit, after twenty-four hours he removes it.

2. He usually keeps the pessary in for two or three months. If, after a week, the organ is found again misplaced, all is fully explained to the patient, and shortening of the round ligaments (which he looks upon as a simple operation) is recommended, and the results in these cases are very satisfactory.

When there is inflammation of the uterine appendages and chronic uterine adhesions, he regards that both the instruments and operation of shortening the ligaments are mischievous and very dangerous. Indeed, he has found these adhesions sometimes so thick and dense that, after hooking the finger under them (during abdominal section), you can almost lift the patient up before the adhesions give way.

3. In these cases the only radical treatment is to perform abdominal section and free all adhesions. If the pathological conditions of the ovaries and tubes require their excision, this can be done. But if not, then the question has to be settled in each case whether the ovary on each side should

be stitched by its hilum to its normal position in the infundibulo-pelvic ligament, in order to prevent the uterus from falling back into its old abnormal position.

In all these cases Dr. Imlach has found but few difficulties, and the mortality has also been *nil*. The benefit done to the patient has been more obvious because in some of the cases treated by shortening the round ligaments the pain endured has been much more severe. A mortality at *nil* and successful results like these are very encouraging. I must, however, hazard one or two sources of error.

In regard to the first category of cases—those treated by Hodge pessaries—it is precisely in cases of subinvolution where the intra-uterine pessary is so beneficial, as provoking, as beforesaid, discharges which reduce the uterine size. But to keep a pessary in for two or three months only is clearly too short a period. The uterine ligaments, so long dragged upon, require, rather, six or nine months before they recover their tone, and then need to be assisted with ergot and other remedies, specially of the strychnine type. For my part, I make it a rule always to remove a Hodge after three or four months, but only to clean it and to allay any local irritation, for about a week, and I then replace it. In a marked flexion which has existed a long time a year is the least period which should be allowed before its removal.

Then, in regard to the second category of cases, a uterus must be reduced in size before it can be rectified by the shortening of the round ligaments, which will otherwise assuredly stretch again.

Lastly, in regard to the third category of cases, unless, indeed, the adhesions be unusually strong, the use of the *spring* pessary before noticed will gradually overcome these adhesions, and the uterus will resume either its normal position or one very near to it. Here again, therefore, before the abdominal section is finally had recourse to, I would try this means for a few months, and then, if it failed, perform oophor-rhaphy, to which operation the palm of *victoria in arduis* would have to be given.

Conclusions on the Treatment of Flexions.

I. Where ordinary Hodge pessaries are used—

(a) No pessaries whatever should be used until such time as all inflammatory or congestive symptoms have been removed, and this is a *sine quâ non* in all cases where the fundus uteri is tender or inflamed.

(b) Particular care should be taken to ensure an exact fit of such pessary to the affected person, and to prevent pressure on the fundus or bent angle of the flexed uterus. It should be removed for cleansing purposes, &c., every three or four months for a few days, but again replaced, altogether kept in for a year. A shorter period can never, or very seldom, cure.

II. In regard to intra-uterine stems—

(a) Wherever the canal is narrowed or obstructed at the point of flexion, an intra-uterine stem is essential. In no case, however, should it be allowed to press against or even touch the fundus.

(b) Where the flexion is not very marked, the indiarubber stem may be used. If the flexion be great, it is best to support it by a buckle pessary and an internal stem again within it. In such cases, however, the solid diverging stem or buckle pessary are preferable.

(c) If the adhesions which force the uterus in a flexed position be strong, the indiarubber steel-spring pessary should be first tried. If the adhesions be too strong, oophorrhaphy affords the only chance of cure.

(d) Intra-uterine stems, whether with or without buckle pessary, should be kept in for six or eight months.

(e) In cases of great subinvolution of the uterus, the stem should be thicker than in ordinary cases, and especially so if the flexion be very marked.

(f) Neither suspension of the uterus nor shortening of the round ligaments should be practised in cases of great uterine enlargement or prolapse. The same objections hold in cases

of firm and extensive adhesions, and great debility and relaxation of the ligaments.

(g) In all cases with marked prolapse the buckle pessary is the safest.

Such, Mr. President, are the views which I have ventured—I admit very inadequately—to propound before you all. I have endeavoured to put the whole question fairly and impartially before you. Perhaps some of the Fellows may think I have not spoken favourably enough of the surgical methods recommended by others. It may be so; but, to a certain extent, I have done this purposely; and I dare say when I explain the reason you will acquit me of any intentional discourtesy. Two or three months before your late President Dr. Meadows's death, I met him accidentally at the West Drayton Railway Station. There I remember we had a very interesting conversation, in which he expressed to me his great sorrow to find that the close attention to therapeutics and a more careful medical treatment of gynæcological cases where practicable and desirable were being too much neglected before the more heroic and startling abdominal operations. These last, he thought, were often prematurely undertaken. It was therefore agreed that I should bring this question before your Society, and refer especially to the choice of measures in cases of flexions, and sound a note of warning, lest even more extreme measures still should become the fashion. Thus, without wishing in any degree to diminish the glory and just praise due to any Fellow either in this or any other Society, I have wished to keep faith with a personal friend and a physician to whom we all looked up, and now ask you to take this paper as the fulfilment of a duty imposed upon me, in the hope that after a full discussion an impartial and philosophical decision may be arrived at, to regulate our future actions in such cases.

The Society then adjourned.

REVIEWS.

The Science and Art of Obstetrics. By THEOPHILUS PARVIN, M.D., LL.D., Professor of Obstetrics in Jefferson Medical College. Philadelphia, 1887.

Lehrbuch der Geburtshülfe für Aerzte und Studirende. Von Dr. PAUL ZWEIFEL, Professor in Erlangen. Stuttgart, 1887.

The almost simultaneous appearance of a text-book on obstetrics in America and in Germany, both by teachers of well-earned distinction and of representative position, offers a favourable opportunity for taking a comparative survey of some of the leading questions of the day.

It may be stated, *in limine*, not unfairly, that American obstetric literature, as represented by Lusk and Parvin, is in too many respects a reflection of German teaching. Parvin is less open to this reproach, if reproach it be, than Lusk. He gives proof, we think, of wider research and of more independent thought.

We need not dwell upon the anatomical part of Parvin's work. It is, of course, mainly borrowed. The illustrations will all be recognised, even although only a few of them are directly credited to the source whence they are taken. In this respect Zweifel is superior. He almost invariably gives the name of the author from whom he adopts an illustration. He gives no minute description of the female pelvis, but gives an adequate account of the development of the ovum. In the history of menstruation Parvin gives no hint of the increased vascular tension which precedes the flow. Zweifel gives a bare sketch of menstruation, and also ignores the associated high tension. In the history of pregnancy Parvin adopts the teaching of Larcher as to the

normal hypertrophy of the heart, and says, 'The greater activity of the circulation is manifested by increased arterial tension.' This bare statement is almost the only reference to a phenomenon of the highest significance in the physiology and pathology of pregnancy and puerpery. Comparative sphygmograms might have been given.

Amongst the topics well discussed by Parvin is that of Prolonged Pregnancy. He brings together many of the facts and opinions emitted on this *quæstio vexata*. One argument, however, in favour of protraction is surely false. 'If præcocious births be granted it is difficult to deny delayed births; if development be hastened in one case it certainly may be protracted in another.' There is a double fallacy; first, the *petitio principii* as to hastened development; secondly, the deduction is a *non sequitur*. Zweifel on this question is very brief.

Parvin's chapter on Eclampsia is full of references, and the etiology is set forth under five separate heads, expressing as many theories. It is a remarkable instance of the failure we have already noticed in Parvin to recognise the fundamental importance of high vascular tension as inducing the affection of the kidney. There is no mention of Mahomed's demonstration of the pre-albuminuric stage, marked by the sphygmograph. He does not mention the views of Halbertsma as to pressure upon the ureters as the cause of the kidney distress. This is done by Zweifel, who, however, also ignores arterial tension.

In describing Diseases of the Ovum, Parvin, referring to Robert Barnes's distinction between fatty degeneration and fatty metamorphosis of the placenta, says, 'Barnes's first publication was made in 1853.' The fact is that it was made in 1851. We may be pardoned for making this correction, as it affects priority. He gives a sketch of the syphilitic placenta, quoting chiefly from Zilles (1885). This subject is not so fully treated by Zweifel as might have been expected from a German author. We know little of it in this country. Priestley, in his Lumleian Lectures (1887), has given the

most complete account, drawn mostly, of course, from German sources.

We are glad to see that Parvin has adopted the term, 'ectopic' gestation, first used by Dr. Barnes, instead of 'extra-uterine.' It is more precise and comprehensive.

We now come to the interesting question of *Placenta Prævia*. Parvin does not fairly set forth the physiological characters of the ectopic placenta. He does not indicate the difference between the lower and upper zones of the uterus. He states the different methods of treatment, giving first an elaborate description of the *tampon* or plugging. He gives an illustration of this method which shows the vagina plugged with countless balls of cotton—'a hatful,' quoting Pajot, are wanted. We look upon trusting to plugs as equivalent to the ostrich burying his head in the sand to avoid danger. He then describes Barnes's method, and Murphy's adaptation of it, with approval. Then separately, Cohen's method, Davis's (of Wilks-Barre, 1876), which is a modification of Barnes's, then rupture of the membranes, then combined turning, as described by Lomer and claimed by Braxton-Hicks.

The criticism we offer upon all this is, that it is a serious fallacy to regard any one proceeding as capable of dealing successfully with all cases of placenta prævia. Cases vary greatly in their characters and at different stages of their progress. A simple, uniform, or universal treatment is at once irrational and dangerous. A true treatment must be based upon an intelligent grasp of the physiology. The encroachment of the placenta upon the lower zone entails these consequences: the partial detachment of the placenta, entailing hæmorrhage; imperfect dilatation of the cervix and lower segment of the uterus; impeded contraction of the whole uterus, and especially of the lower segment. Hence, whilst the progress of labour is impeded, hæmorrhage goes on. The first, perhaps the oldest, and the most useful thing to do is to rupture the membranes. This takes off uterine tension by lessening bulk of the uterine contents, enables the organ to shrink, and this alone is often enough to set up effective con-

traction. By this, if the case is one of partial presentation especially, the hæmorrhage is stopped by contraction of the bared surface, and by the fœtus being driven down upon it. But often more is required ; the expansion or retraction of the lower zone is impeded by the adhesion of placenta ; therefore this ectopic portion must be detached. This is done by sweeping two fingers round the lower zone as far as Barnes's line of demarcation, otherwise called Bandl's ring, which is determined by the circumference of the fœtal head. It is remarkable how, in many cases, this manœuvre acts. The hæmorrhage quickly ceases, the cervix expands, and labour either proceeds or may be watched. But the labour may flag, the uterus may relax, and hæmorrhage returns. What next ? Help labour to dilate the cervix. Here Barnes's bags give effective aid. They dilate by smooth, safe, eccentric distension, like the natural bag of membranes ; they provoke reflex action of the uterus ; they act as a plug by compressing the bared surface of the lower zone. All this going on, you gain time ; nature recovers strength ; and presently, if need be, you can safely deliver. You have avoided the *accouchement forcé*. And now comes the choice of the method of delivery. You may deliver by forceps or by turning. If the head present and the cervix be sufficiently dilated, surely the forceps is the better alternative. The child is respected, and has often been saved, while the mother's safety is not in any way compromised. But there are cases in which the bi-polar method of turning is to be preferred. If the presentation be other than the head, if hæmorrhage is persistent and the cervix imperfectly dilated, it is better to turn and to keep the breech pressing down upon the lower segment of the uterus until it can pass. Thus we see that no one manœuvre can rank as *the* treatment of placenta prævia, but several proceedings come into play in turn. To extol any one proceeding, even the bi-polar turning, as *the* treatment is to display lack of intelligence or lack of candour. Dr. Braxton-Hicks, we are happy to say, although overestimating the extent of application of his method of turning, is not open to the

reproach which others have deserved. It has been stated in an address by the President of the Obstetrical Society that 'about a quarter of a century ago Dr. Hicks enunciated the scientific method of treating placenta prævia,' meaning, we suppose, delivery by bi-polar turning. It ought to be noted that, so long ago as 1861—that is, twenty-six years ago—Dr. Barnes, in a clinical lecture on placenta prævia, described this application of bi-polar turning.

Zweifel has not much instruction to give on this subject. He advocates immediate bi-manual turning. He has seen very few cases ; and this, we suspect, is true of others who have uttered dogmatic dicta upon the subject. Immediate bi-manual turning pure and simple is an improved modification of the old *accouchement forcé*.

The 'accidental hæmorrhage' of Rigby is passed over very inadequately by both authors. Parvin quotes Winter (1885) as having 'recently shewn a connection between nephritis and premature detachment of the placenta in these cases.' This preference in quoting a German author is not uncommon. He may be reminded that Blot demonstrated this relation many years ago. Zweifel is also very defective. He betrays want of clinical experience.

Post-partum Hæmorrhage is very well discussed by Parvin. Zweifel is too brief ; his comments upon the use of ferric chloride evince but scanty experience ; no doubt he has exercised his skill in preventing hæmorrhage. Parvin does not mention the invaluable rallying power of subcutaneous injection of ether. At the last gasp apparently, we and others have restored patients and gained opportunity for the use of styptic and restorative treatment. He mentions transfusion, but the first question is to keep the woman alive until transfusion can be done. Zweifel also overlooks this great resource when life is trembling in the balance.

The obstetric operations are not very successfully dealt with by either author. In the interest of good obstetric surgery we feel called upon to comment upon Parvin's discussion of the modes of managing labour with 'doubled fœtus,' in

which, breech presenting, the legs are extended upon the chest. In the first place the title is bad and misleading. The term 'doubled foetus' ought to be reserved for that stage in spontaneous expulsion when the body is doubled up, *conduplicato corpore*. He figures the application of the blunt hook to drag upon the groins. This we revolt against as a barbarous operation. If the child is born alive, it is almost always severely injured, even maimed. He then turns to the scarcely less rude method of the fillet. He quotes Barnes's plan of decomposing the wedge by bringing down one foot. Without expressing his own opinion, probably for lack of experience, he cites Playfair, who regards the procedure as always difficult, and it may be very hazardous. We do not deny that it is difficult; but many things that ought to be done are difficult. This complication does not seem to have come within Zweifel's consideration. We have seldom had results in practice more gratifying than by our plan of 'decomposing the wedge.'

The German influence over Parvin is marked by the singular fact that in describing—very briefly and not accurately—the phenomena of spontaneous version and spontaneous evolution, he cites Røederer and Kleinwächter—the latter a recent author—and has no mention of Douglas or Denman!

Zweifel treats Version elaborately. One illustration—we know not if original—represents the surgeon, with spectacles, in an absurd position supposed to be engaged in turning. Under the title 'Combined Version' he describes Hicks's method, and borrows his illustrations without direct acknowledgment.

Undue space is given to the history of the forceps and figures of obsolete instruments. We are far from thinking lightly of history if pursued logically, tracing the steps by which improvements have been developed. But it can hardly be said that either author has done this. In each there is an illustration more amusing than instructive. Thus Parvin (p. 637) figures three hands applying the forceps. The best obstetrice has only two hands, and two are enough. Zweifel

has a bespectacled surgeon holding the forceps, the woman lying on her back in the bed in a position in which it would be impossible to carry out the operation.

On the ever-recurring question, Is it time to abolish craniotomy and to substitute Cæsarian section? Parvin, looking forward to the good time when embryotomy will be restricted to very narrow limits, still thinks that if in a given case embryotomy is a less risk to the mother it should be selected. The question is well discussed by Zweifel, both from the moral and the surgical aspect. 'Hitherto,' he says, 'the law has ruled with full justice that so long as a fœtus can be brought forth by help of perforation by the natural passages the Cæsarian section must not be performed.' The recent improvements in the latter operation tend to diminish the risk to the mother, while it obviously has the advantage of giving a good chance to the child. But we still contend that, if the mother is primarily considered, there is no comparison to be drawn between the section and craniotomy. Those who contend that the mortality under Cæsarian section may be brought down to the mortality under craniotomy, start from the gross fallacy that craniotomy in proper cases, skilfully performed, carries a serious mortality. We maintain that in such conditions the mortality from craniotomy is practically *nil*. When the mortality of Cæsarian section shall have been brought down to this point or near it, then, indeed, craniotomy will no longer be justified.

We find no mention in either author of the 'Couveuse,' or warm-water apparatus of Tarnier, so successfully used of late years in Paris and Glasgow for the preservation of premature and delicate infants.

The great question of the *Nature, Prophylaxis and Treatment of Puerperal Fever* receives little elucidation from either author. The minds of both are dominated by the narrow German view that puerperal fever is simply septicæmia, or the effect of a poison from without, the entrance taking place through a wound of the uterus, or of some part of the vulvo-vaginal canal. They question if there be such a thing as

proper puerperal fever. Both alike fail to realise the fundamental importance of the state of the puerperal woman. That sudden transition from the high vascular and nervous tension attending active building up of tissue, of pregnancy, to the opposite state of rapid disintegration and clearing away of stuff become superfluous which marks the puerperal constitution, is utterly unappreciated. The turn of the tide which marks the transition from gestation to puerpery is unseen. And yet even the most exclusive advocates of the theory of septicaemia might be expected to recognise this much, that the compound term implies two things at least, a poison and the blood—the poison-germ, microbe or micrococcus; and the soil or culture-ground in which the poison is developed. Now they might fairly be asked, is there not something peculiar, special, to the lying-in woman, in her blood, that is in the culture-ground? Can they dispute the fact that about the third day after labour the vascular system is rapidly invaded by the effete stuff resulting from disintegrating tissues? Can they not realise the fact that the smooth course of puerpery depends upon the due balance between the ingestion and excretion of waste-stuff being preserved? And is not this balance constantly liable to be disturbed? A chill, an emotion, will do it. Slight influences, internal as well as external, will easily turn the scale, arresting excretion. What ensues? Accumulation of self-generated noxious stuff in the system. There is no need to invoke absorption of foul matter from without. This self-empoisonment is an essentially distinct thing from the inoculation through a wound, which is distinguished as self-infection. When the secreting and excreting glandular organs are imperfectly developed, as in delicate women unaccustomed to work, excretion is easily asserted. And when it is so, fever ensues. This is the fundamental idea of our autogenetic puerperal fever, or *endosepsis*. No external poison is wanted for this. It is *autogenetic*. Then we come to another condition, which brings us nearer to the German doctrine. The subject absorbs foul stuff from the genital tract through the wounds made in parturition. But

this is not all the history. This poison works with special virulence because it is sown in puerperal blood loaded with effete stuff. Thus we get a complex condition, which we may call *autosepsis*. Then there is a third order of cases, in which the introduction of a poison altogether foreign is a necessary factor. This may be cadaveric, scarlatinal, varicellous, or other. This we may call *exosepsis*. Again the foreign poison works in a special soil.

Thus as a primary classification we must recognise autogenetic cases and heterogenetic cases.

Will Dr. Parvin or Dr. Zweifel dispute any one of the above propositions, or that they hang together in necessary relation? Let us trust that they will, on closer clinical observation of the physiology of the gravida and of the puerpera, in a larger spirit, reconsider their decisions.

One feature and fault common to German authors is conspicuous in Zweifel. The 'Literatur' given at the head of each subject, if it means anything, professes to be a fair enumeration of the authorities cited. It is never satisfactory. Most important authorities are frequently omitted, and very insignificant second- or third-hand ones are cited. Sometimes the 'Literatur' does duty for direct acknowledgment of what is borrowed, and more frequently matter is borrowed from sources neither acknowledged in the text nor in the 'Literatur.'

In conclusion, we cannot refrain from saying how much the profit and pleasure derived from the study of both these works has been enhanced by the literary skill of the authors. Zweifel's book is a model of clear writing—a merit not common amongst Germans. Parvin's book is delightful reading. It is distinguished by frequent historical and classical references. These are generally accurate, of course not always complete—when will history ever be complete?—and they are always to the point.

R. B.

Abdominal Surgery. By J. GREIG SMITH, M.A., F.R.S.E.

This work, which embraces all the most modern and improved operations on the abdomen, has been brought before the medical profession at a very opportune time. Hitherto operations on the abdomen, with their statistics, and a description of each operation, have appeared in a scattered form in various journals, or in the form of monographs, and have not been accessible to the practitioner. That a work of this description was greatly needed is evident on glancing at the enormous amount of literature which the author has gone over, and referred to at the end of the volume under the title of Bibliography.

The book is published in a very convenient form; the type is clear; the illustrations are numerous and carefully made.

The work is divided into twelve sections, each section opening with a short description of the anatomy of the part, while microscopic or general pathology has wisely been excluded, except in cases where it has a direct bearing on the diagnosis or treatment.

The first two sections are devoted to the diagnosis of abdominal tumours and some general considerations with regard to abdominal operations. In Section III. we find operations on the uterine appendages fully described, with a short account of the history of ovariectomy. The treatment of the pedicle in ovariectomy is carefully and fully entered into, as are also the methods of cleansing the peritoneal cavity, and the question of drainage. Section IV. is confined to operations on the non-gravid uterus, special care being paid to the description of hysterectomy for myoma and the methods of treating the pedicle. Section V. deals with operations on the gravid uterus. The Cæsarian section is compared with Porro's operation and Laparo-elytrotomy, and the mortality statistics of each operation, so far as they can be obtained, are given. The surgical treatment of rupture of the uterus, extra-uterine

gestation, and pregnancy in one horn of a uterus bicornis, are also considered in this section, which is an extremely valuable addition to the literature of the subject, its clearness and terseness being marked. In the sections which follow, operations on the stomach, intestines, kidneys, and other abdominal organs are described, and are well worth careful perusal, as in them will be found many valuable hints.

Altogether we can confidently recommend this useful addition to abdominal surgery to our readers. The style of the author is clear and concise, and a careful study of the volume will give much pleasure and instruction. Dr. Greig Smith is to be heartily congratulated on his valuable work, which is sure to pass through many editions, and which reflects the greatest credit on himself and provincial surgery.

*SUMMARY OF GYNÆCOLOGY, INCLUDING
OBSTETRICS.*

ACADEMY OF MEDICINE IN IRELAND :

OBSTETRICAL SECTION.

FRIDAY, APRIL 1, 1887.

Encephalocele.—Dr. Alfred Smith exhibited an encephalocele. The interesting point was the enormous size of the child, which was 21 inches long and 11 lbs. in weight. This was, perhaps, because the brain had ceased to require food, and the additional supply went to the other parts of the body. The child had come to its full term.

Ovarian Cyst.—The President exhibited a multilocular ovarian cyst, which was peculiar in consisting of two very large cysts and one smaller one, which were all connected by a common isthmus, so that at the operation he first thought it was a case of double ovarian tumour.

Malignant Growth of Cervix Uteri.—The President also exhibited a malignant growth, which had been removed from the cervix uteri by Schroeder's operation. The patient was a strong, florid-looking woman, and the only symptom was menorrhagia, which had lasted for eight months. The old method of removal was by putting an écraseur round the base of the tumour. The modern way was to amputate the cervix of the uterus as high up as possible, with which object the cervix was first incised up to the fornix vaginæ at both sides, and then each lip was amputated as high up as possible by a V-shaped incision, the two edges of which were afterwards brought firmly together by silk sutures. This effectu-

ally prevented any hæmorrhage. The woman had a perfectly afebrile convalescence.

Monocular Fœtus.—The President also exhibited a small monocular fœtus from a case where abortion had occurred about the end of the third month of pregnancy.

Treatment of Vesico-vaginal and Vesico-uterine Fistulæ.—Dr. More Madden read a paper on the treatment of difficult and exceptional cases of vesical fistula consequent on parturition. In nearly every instance of vesico-uterine fistula that had come under his notice, the patients had been delivered instrumentally, and were pluriparæ in whom the uterine walls had been disintegrated by imperfect involution. In the latter cases there were, as a rule, but three courses open to the operator, namely, trachelorrhaphy in the first instance, followed by a plastic operation on the ruptured vesico-uterine walls; secondly, closure of the os uteri, so as to convert the uterus into an appendix to the bladder; or, thirdly, the same result might be obtained in some cases by turning the cervix into the vesical wound, within the closed walls of which it might be included. In this connection, Dr. More Madden referred to a case in which, after the normal aperture of the uterus was thus closed, the patient subsequently again became pregnant. In destruction from sloughing of the entire vesico-vaginal septum, none of the usual reparative operations were feasible, and in such cases the advisability of closing the vaginal orifice, so as to afford a possible restitution of retentive power, became a question for consideration. Against Simon's operation was the liability to fatal renal disease, which Dr. Emmet held to be an inevitable result of it. In some instances the most extensive vesico-vaginal fistulæ might in time become cured without any operation, by the occurrence of senile atresia of the vagina—a fact of which two cases had come under Dr. More Madden's observation. In some cases, however, there was no resource but to close the vaginal orifice, and the writer succeeded in thus curing a very extensive fistula by a modification of Simon's operation. Whether in this case any renal disease supervened or not

there were no data to say.—Dr. Roe said it was the experience of most of them that in all cases of vesico-vaginal fistula delivery had been effected by instruments. He believed that in the majority of cases the fistulæ were the result of sloughing.—Dr. Horne made some remarks, and the President said that when they looked back upon the history of vesico-vaginal fistula, it was extremely interesting to find that a disease which at one time was considered almost incurable could now, except in the worst cases, be cured with absolute certainty, and they should never cease to hope that some day even the severer cases would be brought within the power of the gynæcologist. No person in modern times, with the exception of Marion Sims, had done so much to show them how this disease ought to be treated as the late Professor Simon of Heidelberg. It was most desirable to draw the attention of young men to the conditions he had laid down as necessary for the cure of these cases. First of all, broad, freshened surfaces were required; secondly, all tension should be taken off the edges; lastly, the edges should be brought accurately together by plenty of stitches. When the uterus itself was fixed, the upper edge of the fistula could often be mobilised by dissecting a portion of the bladder off from the neck of the uterus. In other cases, where the uterus was still movable, if the slightest shred of the urethra were left, the neck of the uterus could be brought down to it. Dr. Roe had opened an interesting question as to the etiology of those cases. When he (the President) was first studying them, he was under the impression that it was in cases of first childbirth that vesico-vaginal fistula occurred most frequently. But he had not found that most of the cases of the disease that came from the country were cases of first birth; on the contrary, the majority of the women had borne children before; and he thought the occurrence of the disease in them was to be explained by the tediousness of their labours. These considerations pointed to the fact that it was not great pressure but prolonged pressure that caused vesico-vaginal fistula. Again, even supposing that the injury might be

caused by the forceps, it would, in all probability, be a tear, if not a clean cut. In such a case the loss of tissue would be so slight that cure would be an absolute certainty.—Dr. Madden replied.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 6, 1887.

The Mechanism of the Third Stage of Labour.—This paper, by Dr. Champneys, was the second of a series, and dealt with 'The Expulsion of the Placenta.' The author reviewed the literature of the subject, including the observations of Lemser, Salin, Duncan, Schultze, Ribemont, and Ahlfeld. He then gave his own observations of seventy cases, carefully observed and tabulated, as regards the manner of the expulsion of the placenta and the blood-loss in each case; the measures of the membranes and presenting point of the placenta were given in the table. The foetal surface presented in sixty-four, the maternal in two (in both of which the cord had probably been pulled upon), the amnion in four. Adding his results to those of Pinard and Ribemont, Dr. Champneys found that the foetal surface presented in 127, the foetal edge in twenty-seven, the maternal surface in five. The presenting point was nearer the lower edge of the placenta in sixty-five, nearer the upper edge in one, midway in two, no note of its position in two. The lower edge, or amnion below the lower edge, presented in sixteen. In the great majority of cases a point within two inches of the edge presented, but on the foetal surface. There was a complete absence of fundal attachments. It was found that the presenting part varied in its position with the position of the placenta. The higher the placenta the higher the presenting point, and *vice versa*. The average loss of blood before the expulsion of the placenta was six ounces, in the membranes or with the placenta six ounces, making an average of twelve ounces for each labour, not including *post-partum* hæmorrhages. Hence a moderate loss of blood was a normal phenomenon of the third stage of

labour. Dr. Champneys' final conclusions were: (1) that some measurable hæmorrhage was a normal constituent of the phenomenon of the third stage of labour; (2) the placenta presented in the great majority of cases by a point on the amniotic surface; (3) the presenting point was almost invariably near the lower edge of the placenta; (4) the position of the presenting point varied with the position of the placenta; (5) the 'inversion' of the placenta was not due in the great majority of cases to traction on the cord, but was part of the natural mechanism. These observations, therefore, accorded in essentials with those of Schultze, though his diagrams were greatly exaggerated. These observations bore on the opinion previously expressed as to the causes and mode of separation of the placenta. Therefore (1) it was probable that, in addition to reduction of the placental site, some escape of blood played a part in the ordinary mechanism of placental detachment; (2) the slight inversion of the placenta which did take place was probably due to this cause; (3) the effusion of blood was not, in ordinary cases, sufficient to form a large mass bulging into a large uterine cavity behind the placenta.—Dr. Matthews Duncan congratulated the Society on the elaborate papers just read, not only on account of their intrinsic value, but also because of their bringing the Society into contributing to the progress of the greatest obstetric work of the century. In the history of midwifery there were only three works of the very highest class as yet achieved. The first in scientific order of progress was done in the eighteenth century by W. Hunter, whose plates of the anatomy of pregnancy were its crown. The second was a work mainly of this century, and was known as the mechanism of parturition, and with it were connected many names, especially those of Solayrer and of Nægele. The third was still incomplete—the greatest, most difficult, and most glorious of all, a work of the nineteenth century, the anatomy of labour. In this country no name was so great in the anatomy of labour as Barbour, and he was actively engaged in it at this moment. No contribution to it had come from London, and the papers

of Dr. Champneys he hailed as worthily bringing a part of it before this Society. The anatomy of labour made no progress till the introduction of complete sections of frozen bodies. No such sections had been done in London, and nowhere had such sections been made in the third stage of labour. The work of Dr. Champneys was mainly physiological, and should come after the completion of the anatomy of the third stage, for the subject of his work would not be settled till the anatomy was finished. Failing to find bodies for the sectional anatomy of the third stage, obstetricians had examined the uteri of the operation of Porro. This was an imperfect substitute for frozen sections, and might be very misleading. The Porro uterus examined by Barbour showed that the placental area might be contracted to a diameter of four inches without separation, and the absence in these cases of hæmatoma was hostile to the theory of separation by uteroplacental hæmorrhage, but it did not disprove it. Absence of separation with contraction to an area of four inches in diameter seemed to astonish many, and to favour the detrusion theory of separation.—Dr. M. Duncan always imagined a much greater contraction as necessary for separation. He referred to his own paper in 1871, which was now a matter of ‘ancient history,’ and would not be praiseworthy at this date; yet, admitting its imperfections, he was still an unbeliever in the presence of hæmatoma in a natural separation in a theoretically natural case, and he continued to hold that the cake descended edgewise through the cervix, and referring to Dr. Champneys’ table, columns A and B, confirmed this. The old detrusion theory of separation he had found difficult to make intelligible. He could not understand the production of detrusion till after separation. He could not imagine detrusion pushing off the lowest flap (as in the Porro case exhibited by Dr. Galabin) without pushing off all above it.—Dr. Galabin understood that the author had not come to a decided opinion whether the separation of the placenta was from the periphery to the centre, or *vice versâ*. Dr. Galabin thought this depended on the cause of separation. If the

cause were from shrinking of the placental site, separation must be from the periphery inwards. If hæmorrhage were the cause, it must occur away from the margin, and could only effect a separation from the centre towards the periphery. Even if it were admitted that an effusion of blood was normally present, it did not follow that the hæmorrhage was a cause rather than a consequence of detachment. Dr. Galabin thought that the Porro uterus was in favour of shrinking of the placental site, with possibly detrusion as a cause of detachment, and not hæmorrhage. Detrusion, acting as a supplementary cause of shrinking, would cause detachment of the lower margin first. As regards the mechanism of expulsion, he thought it depended on the management of the third stage of labour. In Salin's cases, the placenta presented at the os by its lower margin, and there was no inversion. In Champneys' cases there was partial inversion. In Lemser's cases, the upper edge usually presented. The probable reason was that the management of Salin's cases promoted the best uterine contraction; that of Lemser's the greatest relaxation; that of Champneys' an intermediate condition. Dr. Galabin did not think that leaving the uterus unsupported, with the patient on her side and the fundus dependent, would give the most ideally natural mechanism.

WEDNESDAY, MAY 4, 1887.

Uterine Appendages.—Mr. Lawson Tait showed a series of specimens removed on account of inflammatory disease.

Malformation of the Fallopian Tubes.—Mr. Alban Doran exhibited this specimen, in which there was an accessory ostium surrounded with fimbriæ.

Spinal Meningocele.—Dr. John Phillips showed, for Mr. Reginald Clarke, the head of a seven months' foetus, in which there was dystocia, owing to a meningocele between the axis and occipital bone. The child presented by the breech.

Fibro-myoma of the Ovary.—Dr. Carter said that this tumour, which weighed $10\frac{3}{4}$ lbs., had only been noticed for six months. The patient had made a good recovery.

A Pair of Midwifery Forceps was shown by Dr. Paramore for Dr. Haslam, with a lateral hinge in the handle of the upper blade.

A Speculum was exhibited by Mr. Butler-Smythe, which folded like a tongue depressor.

Hæmorrhagic Parametritis.—Dr. Matthews Duncan related three cases of severe bleeding in cases of parametritic abscess. In the first case the bleeding occurred on opening the abscess, and was easily restrained ; the woman recovered. The bleeding was probably only a profuse oozing. The second case he did not see ; the bleeding was rapidly fatal, and flowed through the bladder, the abscess having spontaneously opened into that viscus. In the third case, also fatal, the bleeding occurred in repeated flows through the bladder, along with pus and sloughs. The bleeding arose from gangrene laying largely open the external and internal iliac veins at their junction. This case he regarded as one, not of ordinary parametritic abscess, but of progressive gangrene of cellular tissue. Of this latter disease he had recorded a case in an appendix to his work, ‘On Perimetritis and Parametritis.’ Dr. Graily Hewitt referred to the particulars of a case he had published, and which Dr. Matthews Duncan had mentioned in his paper. It was entirely due to physical injury, and was not at all analogous to the cases of Dr. Matthews Duncan.—Dr. William Duncan had seen two cases in which, after bursting of the abscess, there was oozing of blood for several days from the pyogenic membrane lining the abscess cavity. He thought that it would have been more correct if Dr. Matthews Duncan had given the cases as hæmorrhage into the sac of a parametritic abscess, and deprecated the use of the title ‘hæmorrhagic parametritis.’—Dr. Galabin had met with a case in which fatal hæmorrhage into a pelvic abscess occurred. The case was originally diagnosed as one of retro-uterine hæmatocele. Suppuration occurred, and discharge through both bladder and rectum. After three months erysipelas occurred about the vulva, and fatal hæmorrhage into the abscess-cavity. Extensive burrowing and sloughing in

the pelvic cellular tissue was found at the necropsy.—Mr. Lawson Tait had never met with any such cases as those described by Dr. Matthews Duncan, and thought that they ought to be dealt with by abdominal section before such disasters arrived. Mr. Tait thought the title of the paper should have been parametritis ending fatally by hæmorrhage.—Dr. Matthews Duncan thought that the title was of no moment, whether hæmorrhagic parametritis or parametritis with hæmorrhage. He knew no reason to regard extravasation of urine as the cause of sloughing, and in a very large number of cases of these abscesses discharging through the bladder he had never met with any evidence of extravasation of urine into the abscess-cavity; it might occur, but he knew no evidence of it.

On the Frequency of Pathological Conditions of the Fallopian Tubes.—Dr. A. H. N. Lewers read a paper founded on observations made on the pelvic organs in a series of 100 cases in the *post-mortem* room of the London Hospital. Very contradictory opinions had been held as to the absolute frequency with which dilatation of the Fallopian tubes—hydro-salpinx, pyosalpinx, and hæmatosalpinx—occurred among the general population. Recently Dr. Henry Coe, in his paper, ‘Is Disease of the Uterine Appendages as frequent as it has been represented to be?’¹ said, ‘Actual disease of the tubes is far less frequent than is generally believed.’ Others, on the contrary, were of opinion that these conditions were of frequent occurrence. The question of the absolute frequency of disease of the tubes was one that could only be settled by observations in the dead-house of a general hospital. Cases where the contents of the dilated tubes were not distinctly purulent or were not composed of blood had there been classed as hydrosalpinx. Disease of the Fallopian tubes restricting the expression to pyosalpinx, hæmatosalpinx, and hydro-salpinx, was met with in seventeen cases out of the 100 examined. A detailed description of each specimen was given in the paper, and a table classifying the chief points of interest

¹ *American Journal of Obstetrics*, June 1886.

in these seventeen cases was appended.—Dr. Galabin thought this communication was of very great value as an addition to the evidence on the subject by Dr. Kingston Fowler. He wished to ask whether the 100 cases recorded were consecutive or selected, as he thought that 17 per cent. was a large proportion of cases of distension of the Fallopian tubes. In 302 necropsies of women above the age of puberty at Guy's Hospital, the pathologists had only found twelve cases of distension of tubes, and two of these were very trivial. This was a proportion of only 4 per cent. There was only one case of pyosalpinx and a doubtful case, the pathologist being uncertain whether two suppurating sacs were tubes or ovaries. The ovaries could not be found. There were fourteen cases of chronic inflammatory disease about the Fallopian tubes, without distension. Of the whole twenty-six cases, it was probable that in seven pelvic inflammation was indirectly the cause of death through the medium of general peritonitis, intestinal obstruction, or in other ways. These included the two cases of pyosalpinx, one of hydrosalpinx, and four of chronic inflammation without distension. Thus in 302 cases there were: of chronic inflammatory disease about the tubes, 9 per cent.; distension of tubes, 4 per cent.; death indirectly, in about 2 or 3 per cent.—Mr. Lawson Tait spoke in eulogy of Dr. Lewers's paper. He found the conclusions drawn from the *post-mortem* room as regards causation, progress, prognosis, and treatment, identical with those which he had been preaching for about ten years on the basis of clinical experience. He confessed that it was somewhat a staggering thing to find 17 per cent. of the women who died in the London Hospital suffering from tubal disease, and this did not include those cases which suffered the most, in which there were adhesions between the ovaries and tubes to the surrounding viscera, more particularly the peritoneal layer lining Douglas's pouch, resulting ultimately in complete retroversion of the uterus with its appendages, and forming one of the most dreadful conditions which the gynecologist had to deal with. When removed it was difficult for an unskilled

pathologist to see anything the matter with them. Dr. Lewers had not included such cases, and they must have been numerous. He thought the explanation of the higher percentage at the London Hospital and the small group at Guy's must be due to locality, and that gonorrhœa was more common amongst the poor at the East End than on the south side of the river. At the out-patient department at Birmingham, 10 per cent. of the women who applied for relief suffered from chronic inflammatory disease of the uterine appendages. All these did not require operation. The most staggering conclusion to be derived from Dr. Lewers's paper was the enormous fatality of these diseases. At the London Hospital the death-rate was 24 per cent., while at Guy's it would appear to be 25 per cent. For years Mr. Tait had been arguing in favour of operation in order to relieve suffering; but when the pathologists at the London, Guy's, and Middlesex Hospitals showed a death-rate between 24 and 50 per cent., the cry for relief by operation was one which could not be gainsaid. His own results showed that these cases could be relieved by operation, with a mortality not exceeding 2 or 3 per cent. The question as to the sterility caused by these diseases might be settled by ascertaining the period between the occurrence of death and the birth of the last child. Mr. Tait agreed with Dr. Lewers that hydrosalpinx seemed to precede pyosalpinx.

WEDNESDAY, JUNE 1, 1887.

Address to the Queen.—It was unanimously agreed that an address should be presented from the Society to Her Majesty the Queen on the occasion of the completion of the fiftieth year of her reign.

A Case of Cæsarian Section.—Dr. Charles J. Cullingworth read a paper with this title. A rachitic dwarf, aged 30, four feet two inches in height, was sent to him at full time. The pelvis was generally contracted and flat, the estimated conjugata vera being two inches and a quarter. The child was alive. There was great albuminuria, with

œdema of the abdominal wall, labia, and legs. Labour began spontaneously, and when the os uteri was as large as a florin, Cæsarian section was performed with full antiseptic precautions. The child weighed 5 lbs. 9 oz., and was extracted by one leg; it was partially asphyxiated, but soon recovered. After clearing the uterus of the placenta and membranes, its lower segment was constricted by an elastic ligature. The loss of blood was trifling. The uterine wall was united by four deep silk sutures, and the peritoneal edges by six finer superficial silk sutures. The patient died twenty-nine hours after the operation, the temperature remaining under 100° F. until two or three hours before death, when it rose to 100·8°, pulse 140. On *post-mortem* examination, no sufficient cause of death was found except acute parenchymatous nephritis.

Mechanism of the Third Stage of Labour: the Separation and Expulsion of the Membranes.—Dr. F. H. Champneys read a paper with this title. The views that had been expressed on the subject amounted to four: (1) the peeling off of the membranes by the traction of the descending placenta; (2) separation by effusion of blood; (3) wrinkling of the membranes by uterine contraction and retraction; (4) separation of the lower pole of the ovum by retraction of the lower uterine segment. The second of these was dismissed on the ground that the quantity of blood lost in an ordinary labour was too small to produce this result, and that, with the usual eccentric implantation of the placenta, this mechanism would fail of its purpose. He criticised the expression ‘weight of the placenta’ as having influence on the mechanism in the recumbent attitude, and also the expression ‘leaving [the process] to nature,’ as applied to its course in the recumbent attitude. He explained the natural process as follows: (1) separation of the lower pole of the ovum by retraction of the lower uterine segment during the ‘premonitory’ stage of labour; this required a complete ‘bag of waters.’ (2) Wrinkling and partial separation of the membranes by diminution of the internal surface of the uterus; this required some escape of the waters. (3) Peeling off of the membranes by

the traction of the descending placenta ; this required the evacuation of the uterus. The rupture of the membranes at the proper time was an integral part of the normal process. The first stage in the process seemed calculated to prevent a very common defect, namely, the adhesion of the membranes round the lower uterine segment.

OBSTETRICAL SOCIETY OF EDINBURGH.

WEDNESDAY, FEBRUARY 9, 1887.

Papillomatous Cyst of the Broad Ligament.—Dr. Byrne exhibited this specimen. The cyst was a monolocular one, and was situated between the layers of the broad ligament, probably originating from one of the parovarian tubules. The outer extremity of the Fallopian tube and the ovarian fimbriæ were seen to be stretched over the surface of the cyst, and from its interior grew a papillomatous mass covering an area the size of a half-crown piece. The malignant proclivity with which the contents of these papillomatous cysts invade the peritoneum being well known, he thought the cyst had only been removed in time. The danger of tapping was manifest from the character of the cyst.

Diseased Uterine Appendages, removed from a patient in December last, were also shown by Dr. Byrne. The patient had been sterile, and had suffered pain for nine years. Latterly the pain had become constant. The tubes were tortuous, thickened, and had a semi-cartilaginous feel. The fimbriæ were glued together into a large fleshy-looking mass. On making a section through the tubes the inner muscular layer was seen to be greatly thickened. The ovaries were rather larger than normal, and had the usual characteristics of cystic degeneration. Both sides were affected similarly.

The Clinical Teaching of Midwifery and the Diseases of Women.—Dr. W. L. Reid (Glasgow) divided his subject under three heads : (1) The Past ; (2) The Present ; (3) The Ideal of Clinical Teaching. After giving an account of his

individual experience as a student, and the imperfect system of teaching midwifery and gynæcology twenty years ago, he said that the present system was not much better. Almost all the students in Glasgow take their midwifery lectures in their fourth winter. During their second or third summer or autumn they take their practical midwifery. They trust to first seeing a case with a student who has already attended one or two. Each man is sent for to six cases, four of which, possibly being multiparæ, are over before, or very soon after, he reaches the house. In the other two he probably fails to find the os uteri, and has no notion of the presentation until the head rests on the perinæum ; and when the cases are over he feels thankful that none of the women or children died in his hands. He is then supplied with his certificate, and after sitting through a systematic course and answering a few questions—for there is no clinical pass examination in this subject—he is launched on the world as an accoucheur. No wonder that this man for some years after feels small in the presence of the old women of the district in which he practises. Of late years some changes for the better had been made at the Glasgow Maternity Hospital, and a house-surgeon was appointed whose chief duty it was to attend with the student at his three first cases and give him clinical instruction in their management.

Dr. Reid says a student ought to take his systematic course on midwifery during his third summer or winter, and his practical course during the succeeding summer or winter. No student should be allowed to take midwifery cases unless he can produce a certificate of having attended some sufficient course of theoretical instruction on the subject. He should first watch the course of six cases in the labour-room under the care of the house-surgeon or head nurse. He should then, along with another student, be sent to outdoor cases, each case being visited during or soon after labour by the outdoor surgeon.

As to the clinical teaching of the diseases of women, Dr. Reid has adopted the following plan. A dozen students are

taken every three months, those being preferred who have had previous theoretical instruction. They all hear every woman questioned, and a note of her history and symptoms taken down. If a local examination is necessary, four of them go into an adjoining room and see the patient examined and treated. After a few weeks each student takes his share in the examination and treatment, under guidance, and is asked to state what he finds wrong, and what he can suggest as to treatment. A student who comes prepared by a previous theoretical course thus leaves with a fair notion of how to treat the ordinary diseases of women. He condemns most strongly the notion which exists in various quarters that a student ought not to be remitted at his pass examination because he is ignorant of the diseases of women.

How to guard the Perinæum while the Fœtal Head is passing.—Dr. Berry Hart says the best way of doing this is as follows. With the patient lying, of course, on her left side, the attendant places the thumb of his right hand, guarded by a napkin soaked in hot sublimate, in front of the anus, and presses it gently there. The pressure is not in the direction of a line joining his thumb and the pubic arch, but nearly in that of the axis of the pelvic outlet. By this, descent of the sinciput is hindered, and that of the occiput favoured. When the latter is beginning to pass under the pubic arch, the fingers of the same hand are placed between it and the apex of the arch, so that when the occiput has cleared the arch, the fingers are passed towards the nape of the neck, and the head thus grasped in the hand, the thumb lying over the sagittal suture. This gives one complete command over the head, which is now engaging in the diameters between the nape of the neck and forehead and face, and allows the whole passage with as little tear as possible.

WEDNESDAY, MARCH 9, 1887.

On the Indications for, and Method of, washing out the Puerperal Uterus.—Dr. J. Halliday Broom deprecates any manual interference with the parturient or puerperal

uterus that is not absolutely necessary. Every examination made during labour is a possible source of infection, and, still more so, any opening up of the genital canal after labour develops a fresh source for the introduction of septic material in the still fresh wounds. He discourages the meddlesome interference of nurses with douches, syringes, and so forth, as routine in every case of labour, at least in private practice. The less the vagina is opened up the better it will be for the patient. If this be true of the vagina, still more is it so with regard to the opening up and interfering with the uterine cavity. Still there are conditions where it is necessary. The indications for antiseptic washing out of the uterine cavity are as follows:—

1. Where, with localised tenderness over the uterus, there is a high pulse and temperature and a foetid discharge. It is to be observed that the discharge must be foetid *from the uterus*. All first washings out should be performed under chloroform, and the cavity of the uterus explored with the finger. In most cases some morbid product will be found, and the necessary dilatation of the cervix will much facilitate the process of washing out.

2. Where, with a high pulse and temperature, there is any question as to the complete delivery of the placenta. A careful examination of the placenta after delivery is in all cases of the greatest importance.

3. Where portions of membrane have been retained *in utero*, and give rise to increase in pulse and temperature.

4. After the birth of a putrid foetus.

5. Where the uterus remains abnormally large after labour, and where, as a result, owing to the presence of decomposing clot, symptoms of septic infection develop themselves. In all such cases quinine ought to be administered in large doses.

6. In cases where, late on in the puerperium, symptoms of septicæmia develop themselves.

7. In those somewhat rare, yet well-recognised cases where, from acute flexion of the uterus, the lochia are retained and decompose.

8. In some cases of imperfect abortion and premature labour, and in all cases where the uterus, under such circumstances, has been curetted.

9. In all cases where the hand has been introduced—say in cases of post-partum hæmorrhage, adherent placenta, or uterine hydatids—washing out the uterus with hot antiseptic water is the recognised treatment.

The only two forms of antiseptics which are sufficiently reliable are either carbolic acid or corrosive sublimate, and of the two corrosive sublimate seems, with proper and careful precautions, to be the form upon which most dependence can be placed. It is not, however, without its objections. The ease with which it is absorbed, and the small quantity required to produce its toxic effects, must be kept strictly in view in using it. The solution should not be stronger than 1 in 4,000 or 1 in 5,000.

Contra-indications.—In cases of inflammation surrounding the uterus, with or without deposit, intra-uterine douching will not only do no good, but will probably render matters worse. It will do no good because the source of infection has passed from the uterus into the veins in the broad ligament, or into the lymphatics, and hence the washing out will not reach the source of evil, and it makes matters worse, for it will increase the inflammation in the surrounding tissues.

BRISTOL MEDICO-CHIRURGICAL JOURNAL.

Ought Craniotomy to be abolished? By JOSEPH GRIFFITH SWAYNE, M.D.

The author, stimulated by the meeting of the British Medical Association held at Brighton last year and by a discussion which took place at a more recent meeting of the British Gynæcological Society on this same subject, has given us, in an able and interesting article, his views as to whether craniotomy should be abolished or not. As the author's experience of craniotomy is very extensive, his opinions and

remarks carry the more weight with them. The author points out that the Cæsarian operation, in order to be successful, should be one of election, not a *dernier ressort*. A case which occurred in Dr. Swayne's practice is related in which attempts to extract by forceps and to turn had failed. The patient had been in labour four days, the head was partly in the cavity of the pelvis, the cranial bones overlapping each other a good deal. The patient was excitable and restless, pulse between the pains over 120. Craniotomy was performed and a male child easily extracted. Shortly after the patient became collapsed, but rallied under stimuli. The author thinks that had the Cæsarian operation been performed the patient 'would have died at once from the shock.'

Another case is mentioned in which the patient was a dwarf, the conjugata vera measuring $1\frac{4}{5}$ of an inch. As labour was just commencing Cæsarian section was decided on, with the result that the mother died, but the child was saved. But, as the author points out, these cases of great pelvic contraction are rare, and when the deformity is not so great, the accoucheur has good reason to hope that he will be able to deliver by the forceps or by turning. He entirely disagrees with those who hold that the Cæsarian operation is 'little, if at all, more dangerous than craniotomy.' According to the present statistics the mortality amongst mothers after the Cæsarian operation is 21 per cent. Dr. Swayne can recall no case in his practice in which death can be attributed to craniotomy. In those which terminated fatally the result was due to (1) protracted labour; in this instance the infant had been dead some hours, and the mother was moribund when he was called in. (2) Convulsions during pregnancy. (3) Hæmorrhage from placenta prævia. (4) Exhaustion arising from starvation due to long continued vomiting before labour.

In conclusion, the degrees of pelvic deformity are reviewed, with the appropriate treatment in each case. In the first degree of contraction, where the C. V. is between three and four inches, forceps should be used, unless the child is dead, in which case craniotomy should be resorted to. If, however, the

child be alive, forceps or turning should be tried, and craniotomy resorted to only as a *dernier ressort* when the two former proceedings have failed. In cases in which the C. V. is between two and three inches, and the birth of a live child is impossible by the ordinary means, craniotomy ought to be abolished, and the child saved by Cæsarian section. But the operation should be done early in labour, under the strictest antiseptic precautions, in order that the mother may run the least possible risk. Finally, craniotomy ought to be abolished in those cases in which the C. V. is under two inches, and the Cæsarian section should be performed. If the cephalotribe were used the child would certainly be destroyed, and the risk to the mother would be almost as great as if Cæsarian section were performed.

EDINBURGH MEDICAL JOURNAL.

On the Indications for and Method of washing out the Puerperal Uterus. By J. HALLIDAY CROOM.

No one objects more than Dr. Halliday Croom to meddlesome interference with the puerperal uterus : in fact, he thinks that even vaginal douches are of doubtful value, and the less the vagina is opened the better will it be for the patient.

The indications for washing out the uterine cavity are (1) a high pulse and temperature, tenderness over the uterus, and a foetid discharge. In order to determine whether the foetid discharge is from the vagina or uterus, wash out the vagina with some antiseptic solution, then pass the finger into the cervix and decide the question. (2) Where, with high pulse and temperature, there is any question as to the absolute complete delivery of the placenta. (3) Where portions of the membranes have been retained *in utero*. (4) After the birth of a putrid foetus. (5) Where the uterus remains abnormally large after labour, and where retained clots are liable to be the cause of septic infection. (6) In cases where late on in the puerperium septicæmia develops. (7) Where acute flexion of the uterus is a cause of retaining the decomposing lochia.

(8) In all cases in which the uterus has been curetted. (9) In all cases where the hand has been introduced into the uterus. Dr. Croom is careful to point out that the value of washing out the uterine cavity is most marked in those cases in which the septic matter has originated in and confined to the uterus; but that where the septic material has passed beyond this or developed outside it washing out is of little or no avail.

The method of carrying out this operation is next described: the position of the patient, the form of syringe, the temperature of the water are all noted. The author advises the fundus of the uterus to be grasped externally and compression exerted over both Fallopian tubes to prevent the passage of fluid into the peritoneal cavity. Another point we are glad to see Dr. Croom insist on is exhibition of chloroform 'for at least the first washing.' The operation is then less painful, shock is avoided, and, most important of all, it allows a more thorough manipulation of the nozzle of the douche and exploration of the cavity. With regard to the antiseptic to be employed, Dr. Croom advocates the use of carbolic acid or corrosive sublimate, this last being the one upon which most dependence can be placed, though it has certain objections. 'The ease with which it is absorbed, and the small quantity required to produce its toxic effects, must be kept strictly in view in using it. Not only is it readily absorbed by the uterus, but even when used for the vagina alone its poisonous effects become manifest; and there are not wanting numerous cases where serious corrosive sublimate poisoning has taken place, some of which ended fatally.

'Keller has shown that in most cases mercury can be detected in the urine after irrigation of the uterus or vagina with sublimate solution of the strength of 1 in 1000 or 1 in 2000, but, of course, most frequently after washing out the uterine cavity. I have myself been able to detect it in my hospital when the solution has been much weaker, and in one case where the vagina alone was syringed with a solution of 1 in 3000 before labour I found traces in the urine.

'Keller records a fatal case of mercurial poisoning. Von

Horff in his paper reports thirteen cases of serious corrosive sublimate poisoning. Partridge records a death after two irrigations of the uterine cavity with a solution of 1 in 2000. Thorn records three cases of poisoning, two of which were fatal. In each of the cases the strength of the solution used was 1 in 1000. In the first case the uterine cavity was washed out after the expulsion of a putrid foetus. Immediately after there was collapse, scanty flow of urine on the third day, diarrhoea, albuminuria, salivation, and ultimately recovery. In the *second* case the uterine cavity was washed out after the expulsion of a three months' foetus, at the sixth month. Death occurred on the ninth day, with symptoms of mercurial poisoning. The third case was one where the vagina alone was irrigated, and the patient died on the ninth day. The cause of these serious, sometimes fatal, symptoms obviously is to be found in the strength of the solution used, none of those in whom serious symptoms developed themselves being weaker than 1 in 2000, and some of them as strong as 1 in 1000.

'In using corrosive sublimate care must be taken that the solution be not stronger than 1 in 4000 or 1 in 5000. The numerous experiments of Koch, Tarnier, and others have shown that this is strong enough for all practical purposes. There are, however, two conditions in which it is of the utmost importance to be careful in the use of corrosive sublimate, and these are in profound anæmia and where there is any kidney disease. In both of these cases carbolic acid will be found a more suitable and safe antiseptic.'

Dr. Croom considers the operation, if performed with proper precautions, to be quite free from danger, though many practitioners regard it as extremely risky; but the reason of this is because they compare the washing out of the puerperal with the washing out of the non-puerperal uterus. 'The risks of this latter operation are so great, in my opinion,' he says, 'as to render its adoption entirely unwarranted.'

Of course, there are certain conditions which render the employment of this method of treatment impracticable, and where douching will only make matters worse, as, for instance,

in cases of para- or peri-metric inflammation, where the septic material has passed out of the uterus in the surrounding tissues.

The Cæsarian Section. By J. STUART NAIRNE, F.F.P.S.

Dr. Nairne, in an article read before the Glasgow Obstetrical and Gynæcological Society, strongly advocates the more frequent performance of Cæsarian section in order to save the lives of more children.

Statistics comparing the relative value of the Cæsarian section and craniotomy are worse than valueless, because they too frequently are made to suit the operator's convenience. Every case should be brought forward with all the circumstances attending it, that the faults attending each case may be pointed out and means considered for obviating them in future. Many have objected that the 'operation would be too frequently and unnecessarily performed,' but, he thinks, only by those who 'are incapable of judging an operation as they are of performing one, or who, if they perform, are cursed with that conceit that can see nothing good, or wise, or great, or even endurable, outside their own petty domains.' Every one of us values life, and knows and appreciates the pleasures and sanctity of home with wife and child, and he refuses to believe that there are men who would perform such an operation unless fully persuaded that it was in the interests both of the mother and child. Though there are no comparisons to be drawn between Cæsarian section and ovariectomy, the author sees no reason why in time Cæsarian section should not have results as brilliant as those obtained in ovariectomy. Porro's operation is the only one that can be compared with Cæsarian section, and must be considered in any proposed case of Cæsarian section. In conclusion (1) Cæsarian section is the only legitimate operation when, from deformity or other conditions of the pelvis, a living child cannot be born. (2) Cæsarian section is not an alternative of craniotomy—it ought to supersede craniotomy in the case of all living children. (3) Craniotomy must be reserved for cases of dead children.

(4) Cæsarian section is not to supersede the use of the long forceps. It is to succeed them in cases where they have been legitimately tried.

ARCHIVES DE TOCOLOGIE.

Inflammation of the Broad Ligament.—Sub-peritoneal laparotomy, by M. Houzel (Boulogne-sur-Mer). The patient was seen by M. Houzel three months after her fourth confinement. There was a painful swelling in the right vaginal *cul de sac* and in the corresponding iliac fossa. It was thought some fluctuation could be made out. There was flexion of the thigh on the pelvis. An incision ten centimetres in length was made above Poupart's ligament, and more than one and a half litres of pus evacuated from the abscess cavity. The walls of this cavity were then scraped and the cavity washed out with a strong carbolised solution. A drainage-tube was inserted and Listerian dressings used. The patient made a successful recovery.

Double Hemato-Salpingitis. By M. TERRILLON.

The patient was 32 years of age ; had four children, the last a year since. Shortly after her last confinement she began to suffer sharp pain in the abdomen, and frequent hæmorrhagic discharges. Two months later had some symptoms of general peritonitis. On examination, the fundus of the uterus was above the symphysis ; the cervix is forwards ; the posterior *cul de sac* is filled by a resistant tumour, the upper limit of which could not be defined. The tumour and uterus were not connected. The diagnosis was hæmatocele with special characters. Abdominal section was performed in the usual way. Behind the uterus was a rounded and fluctuating immovable mass, full of blood-clots. All adhesions were torn down, which allowed some of the clots to fall into the pelvis. The mass was the size of two fists. On the left side, evidently corresponding to the left tube, was another

nodular tumour, which was so adherent that removal of it was only possible by taking away small pieces of it at a time. It was full of blood-clots. In what corresponded to the left ovary was a small cyst. The cavity that was left by the removal of these tumours was ragged and oozing. Boiled and filtered water was freely poured in, and it was finally plugged with sponges to arrest the bleeding. No drainage-tube was used. The operation lasted seventy minutes. The patient made a good recovery. The author remarks that this patient presented all the symptoms of hemato-salpingitis as described by Lawson Tait, and a diagnosis in such cases ought to be accurately made. The operation is one which requires to be carefully done, by feeling one's way with the hand. The use of boiled water for washing out the abdomen is very valuable.

Batley's Operation for Acute Pain and Hysteroid Condition.

By M. TERRIER.

M. Terrier had already operated on one similar case, with a result so favourable that he was induced to operate in the present case. The patient was 33 years of age; had always enjoyed good health until 29 years of age, when she married; since then has had much pain, especially at her monthly periods, and hysterical attacks. Examination by Dr. Magnin showed that general and special sensibility were diminished on the right side, also muscular power on the same side. At the operation both ovaries were removed; the right was easily removed, but the left was fastened down by adhesions. The patient made a good recovery, leaving the hospital about five weeks after the operation. Nearly ten months later the patient was much improved, having no pain and being much less nervous, while the hysterical attacks had disappeared altogether. M. Terrier remarks that the interesting point in this case is the disappearance of hysterical attacks.

Discussion.—M. Lucas-Championnière has operated twice in similar conditions. In both there was an amelioration of

the patient's condition, but it was not complete. One cannot be quite sure that this operation will give complete relief.

M. Monod has twice performed Battey's operation, but not in hysterical women.

M. Pozzi: One of his operations was a great success for five or six months, when she was again seized with abdominal pains.

Extra-uterine Pregnancy. By M. BRUCH.

The patient was 27 years of age, and had had one previous pregnancy. The present pregnancy had gone on well until about the third month, when abdominal pains were experienced; but no importance was attached to them, as they were thought to be due to constipation. At full term the patient had some false labour pains, and an examination led to the diagnosis of extra-uterine foetation. Surgical intervention at the time seemed inadvisable owing to the patient suffering from tuberculosis, and it was not until eight months later that, owing to the serious febrile condition the patient was in, the abdomen was opened by an incision above and parallel to Poupart's ligament, and a dead foetus was extracted after craniotomy had been performed. The cavity was irrigated with a boric acid solution, and drainage established between the cavity and vagina. The fistula remained patulous for about eight months, when it closed, the patient having completely recovered.

Fibrous Polypus of the Cervix compressing the Ureters.

By Dr. JOUIN.

The polypus was hard and resistant, ovoid in shape, six centimetres by five in size, and was composed of a very large amount of fibrous tissue. It was growing from the posterior wall of the cervix, its pedicle was short, measuring three centimetres. It was protruding somewhat into the vagina, and was somewhat easily removed. The polypus was pressing upon and occluding the ureters at the point where they

pass round the cervix to enter the bladder. The interest of the case lies in the fact that the patient had been treated by other practitioners for heart-disease, emphysema, with asthmatic attacks and albuminuria which had existed some years, though it was not until Dr. Jouin examined her that the polypus was found pressing on the ureters, thus setting up an interstitial nephritis. Such cases have been reported by Murphy, Fourestié, and Hanot.

Vaginal Hysterectomy. By Dr. ROHMER.

The patient was 32 years of age. Epithelioma of the cervix had made its appearance five months before the patient came into hospital for an operation. On her entrance into hospital she was pale and enfeebled, but not cachectic. The malignant growth presented the appearance of a cauliflower epithelioma. Both *culs de sac* were free and the uterus mobile. After an incision through the anterior *culs de sac* the operator endeavoured to turn back the uterus, but could only do so after opening the posterior *cul de sac*. The broad ligaments were ligatured on each side, and after being divided the uterus was removed. Some forceps were left on the bleeding points in the vagina. The vagina was washed out with a sublimate solution and iodoform sprinkled over the wound. This dressing was continued every day. The forceps were removed on the third day. The patient died the fifth day. The autopsy showed some pus and blood-clots in the pelvis. The patient had died of peritonitis.

Chronic Suppurating Ovaritis. By M. BOUILLY.

The patient was 33 years of age. Six months after her marriage, fourteen years ago, had suffered from peritonitis. Since then had suffered from constant abdominal pains. An incision into an abscess in the iliac region had relieved her for some time, but the pain returned again. In the right vaginal *cul de sac* was a swelling which was distinct from the uterus.

From the history and physical signs suppuration of the right ovary or tube was diagnosed. On abdominal section being performed, the right ovary was found to be enlarged, adherent, and full of abscesses. The right tube was much hypertrophied. The left ovary was adherent and shrivelled up. The left tube was in a state of chronic inflammation. The catamenia had always been regular and had relieved the patient of much pain.

On Intervention in Face-Presentations. By Dr. DE SOYRE.

Though this subject is not altogether new, it is one of extreme importance, as it was very commonly supposed that face-presentations were unnatural and required artificial aid early in labour. That this is not the case our more recent text-books show, and from large experience Dr. Soyre concludes (1) that in face-presentations early interference must be guarded against and nature be allowed to bring the labour to an end. (2) Owing to the cessation or insufficiency of uterine pains, or to an irregularity in or slowing of the fœtal heart-sounds, or in severe hæmorrhage, convulsions, &c., it is necessary at times to interfere. (3) But even in these cases intervention is hardly warranted unless the cervix is dilated or easily dilatable. (4) When the head will not engage in the brim version is the best treatment. (5) If, however, the head is in the cavity forceps can easily be applied. (6) Pelvic deformities do not modify in any way these conclusions, unless there is a marked disproportion between the size of the child and the pelvic canal.

Castration in the Female. By M. HERRGOTT.

In an article read before the Medical Society of Nancy M. Herrgott discusses this question. From a careful study of the question he arrives at the following conclusions:— (1) Castration in the female is of value in uterine myomata, as it puts an end to the hæmorrhages which endanger the life of

the patient, or it arrests their growth and is thus the means of avoiding hysterectomy. (2) In neurotic cases the proceeding is questionable, as the cause producing the neurotic condition is obscure and uncertain.

On obstructed Labour from short or coiled Funis, and its Treatment by Change of Position from Recumbency to Sitting. By A. F. A. KING, M.D.

Dr. King some years ago called attention to the influence a short or coiled cord had in prolonging labour. He then pointed out a symptom which, though not invariably present in these cases, is usually found, viz. *a persistent desire on the part of the patient to assume a sitting posture*. Some patients do not express this desire, as they are under the belief that after the membranes have ruptured a recumbent position must be assumed; in another class of patient, anæsthesia has robbed them of the desire; while in yet another class the patients are too enfeebled from fatigue to attempt any movement whatever. In one of the labours reported this was the case. The patient, aged twenty-eight, had advanced to full term in her second pregnancy. No albumen, no œdema. Pains began at midnight, December 18, 1884, and recurred every fifteen minutes. Os soft and dilatable, the size of half-a-dollar. Presentation vertex. Membranes intact. December 19, 7 P.M.—Os as large as a dollar; pains strong and frequent. Membranes were ruptured. Labour now went well for some time until the head reached the perinæum, where it remained. The pains gradually decreased in frequency and strength. At each pain, however, the head comes down to the vulva, separates the labia, and returns on the subsidence of the pain. The patient was asked if she wished to sit up, but replied, 'I can't move, it hurts me so.' At 10 P.M. she was made to assume a sitting posture, and the child was speedily born. In commenting on this case Dr. King thinks that if a sitting posture had been assumed at 8 P.M. labour might have been ended two hours sooner and the woman re-

lieved of much pain. The cord was round the neck of the child and very short. In another case reported the patient frequently expressed her desire to sit up, but was forbidden to by her medical attendant ; but in spite of prohibitions the patient persisted in sitting up, and was soon delivered. In a third case the patient, though expressing a desire to sit up, obeyed her doctor's orders not to, with the result that labour was very tedious, delivery had to be effected with forceps, and the child was lost. The author advises that where a short cord is suspected and labour does not progress satisfactorily, instead of delivery by forceps the sitting posture should be tried, as by this means the uterus and its contents are allowed to sink deeper into the pelvis, and the woman has a more powerful control over the abdominal muscles ; and, so far as his experience goes, there is no danger to be feared from this position.

A new Explanation of the Renal Troubles, Eclampsia, and other pathological Phenomena of Pregnancy and Labour. By A. F. A. KING, M.D.

The author, after some preliminary considerations relating to the physiology and pathology of pregnancy and labour, states his theory, which is that 'disturbances in the renal circulation and renal functions are produced chiefly by pressure of the gravid uterus upon the abdominal aorta or its branches, or upon the vena cava or its branches, or upon both or all of these, in consequence of the child and womb not maintaining during pregnancy their normal lateral obliquity above the pelvic brim.'

The normal attitude of the foetus *in utero* before labour begins is, according to the author, 'the dorso-anterior position of an oblique presentation,' whereas a vertex presentation with the long axis of the child parallel with the axis of the pelvic brim is abnormal during pregnancy. The oblique axis of the uterus and child are changed just before the end of pregnancy by the uterine contractions, which cause the long

axis of the fœtus to become parallel with that of the pelvic brim. The relation of the abdominal aorta with its branches are next gone into to show that while this oblique axis of the uterus is maintained during pregnancy, no pressure will be exerted on them, nor on the vena cava, as the fœtal head will lie in one iliac fossa, the breech will not reach high enough to press on the renal vessels, and the aorta and vena cava passing over the projecting part of the lumbar curve will escape pressure by fitting into a 'deep and sudden sulcus between the flexed knees and forehead of the child.' The long axis of the child will be 'oblique to the horizon, the breech being higher than the head ; oblique laterally, the breech to the right, the head to the left ; oblique antero-posteriorly, the head being more in front, the breech more behind ;' and thus all pressure upon neighbouring structures will be avoided. If, however, during pregnancy the long axis of the child lies parallel with the axis of the brim, there will be a 'crowding down' of the fœtus and womb towards the lumbar spine and the vessels lying upon it. Again, if, instead of dorso-anterior, a dorso-posterior position of the child be present, the convexity of the child's back will impinge against the convexity of the promontory, and so cause injurious pressure upon the aorta and vessels lying on it. The question, 'Will pressure of the gravid uterus upon the aorta, vena cava, and their branches produce renal trouble?' is answered in the affirmative. The pressure upon the aorta will lead to high tension in all its branches above the point of compression, while 'compression of the vena cava below, retarding the upward current of venous blood, will retard the exit of blood from the kidneys through the renal veins.' Compression of the ureters is also a factor upon which sufficient stress has hardly been laid : thus Lohlein found dilatation of one or both ureters in 25 per cent. of the deaths from puerperal convulsions.

Among the causes of disturbance of the normal obliquity of the uterus are dress, corsets, coitus, and certain abnormal postures, each of which the author discusses, and which are quite sufficient in the opinion of the author without including

tension of the abdominal walls in the primipara, which is so frequently alleged as a reason for the disturbance of this normal obliquity. The author next points out a significant fact that most obstetric authorities are silent with regard to the relation of eclampsia and transverse presentations. In referring to the 'obstetric treatment' of eclampsia, they refer exclusively to head-presentations. The author has collected from various sources a total of 300,018 labour cases, 'with only one distinctly stated instance of the coincident occurrence of puerperal eclampsia with transverse presentation during labour.' Puerperal eclampsia occurred 392 times out of the total of 300,018 labours, and of these 392 cases the majority presented by the head, in a very few the face, breech, or foot presented, and in only one was the presentation a cross-birth. From these figures Dr. King argues that there is 'a remarkable synchronism' between eclampsia and unoblique positions of the child, and he believes that future clinical observations will prove the correctness of his theory.

Castration in the Female. By Dr. AMI J. MAGNIN.

The operation for removal of the ovaries is one which involves very serious consequences, and should not be undertaken lightly. Besides the risks attending the operation itself, the essential function of the female—reproduction—is abolished.

Howitz, of Copenhagen, has published the results of sixty-two abdominal sections performed by him for various reasons, with one death. Hegar, since 1877, has operated thirty-two times for purely nervous conditions of the female without a single bad result, and Dr. Magnin has collected sixty-seven cases with three deaths, or a percentage of 5 per cent. of deaths, and many other authorities have given their results; but, though the published records are satisfactory, it must be remembered that many unsuccessful cases are consigned to oblivion, which, if recorded, would raise the percentage of deaths considerably.

Besides the operative dangers it must be remembered that the removal of both ovaries abolishes altogether the phenomena of ovulation and destroys the reproductive power of the female, and Dr. Magnin insists, with good reason, on the fact 'that every operation which affects the non-production of a number of human beings cannot lightly be approved of either from a moral or legal point of view.'

If, however, the pathological conditions are such that the patient is certain of a life of suffering and uselessness, or if the lesions of the organs of generation or the phenomena attendant upon menstruation are the cause of nervous symptoms which endanger the life or reason of the patient, it is only natural and right the cause of these fatal influences should be destroyed, and the ovaries removed.

According to M. Terrier the operation is indicated in those cases in which much pain exists, either before, during, or after menstruation, and which has its starting-point in one or both ovaries; and though after oöphorectomy the hysterical or nervous woman will still be hysterical or nervous, 'her neurosis will be reduced to its minimum of intensity, and will be unable to find any excuse for showing itself.' The articles by Sir Spencer Wells, Prof. Hegar, and Dr. Battey, which appeared in the '*American Journal of Medical Science*' in October 1886, are referred to, and the conclusions drawn by each authority are briefly quoted. Sir Spencer Wells, while admitting the necessity and value of the operation in certain cases of uterine fibromata, intractable uterine hæmorrhages, nervous excitation, and mental alienation, believes it to be wholly unjustifiable in cases of nymphomania and madness. Hegar thinks it is extremely difficult, and sometimes impossible, to prove that a neurosis or a group of nervous symptoms have their origin in some obscure affection of the organs of generation, and counsels castration only after every other method of treatment has been given a fair trial. Battey denies that healthy ovaries or tubes are removed in the United States for nervous troubles. It has now been found that 'there exists a form of cystic degeneration, slow in its

development, characterised by the presence of small cysts, more or less numerous, filled with a clear or blood-stained fluid,' which is present in all these cases.

The author concludes with some words of Dr. Gaillard Thomas, which, we think, are well worthy of attention. 'Castration,' he says, 'has, without doubt, a great future ; but it is too frequently performed without any necessity, and even without the slightest indication.'

AMERICAN JOURNAL OF OBSTETRICS.

Tetanus following Abortion. By THOMAS C. SMITH, M.D.

In this article ten cases of tetanus following abortion are mentioned, one occurring in the practice of the author, the rest collected from various sources. The causes of tetanus after abortion seem to be chiefly retention of placenta or membranes ; an insanitary condition of the patient and her surroundings ; undue exposure to cold after miscarriage ; and finally laceration of the cervix in absence of any better reason.

Dr. Smith's patient was aged 27, married, mother of one child. She had a short while before been confined of a six months' child, the miscarriage having been brought on by the use of instruments. Ever since the birth of the child the patient had been going about. There was a very fœtid bloody discharge from the uterus. The hygienic surroundings were extremely unfavourable. The bed was covered with fæces, urine, and lochial discharge. The patient had her jaws tightly closed. The head was drawn back, and there was much pain in the back of the neck. Deglutition was almost impossible. There was a profuse perspiration. The mind was clear ; the pulse averaged about 160 per minute ; the temperature was not ascertained owing to the restless condition of the patient. Forty hours after the onset of the tetanic seizures the patient died. The autopsy showed the heart, lungs, stomach, and intestines to be healthy. The liver, spleen, and kidneys were

decomposing. Uterus large, mucous membrane denuded, dark red; right broad ligament darkly congested. Right ovary contained small cyst; left ovary small and undeveloped. Owing to the decomposition affecting the head and neck these parts were not examined. The author, commenting on this case, remarks that 'the primary cause was abortion'; 'the immediate cause was the exposure and fatigue brought about by the woman's efforts to conceal the consequences of her misdoings.'

Banga reports a case of tetanus after abortion in which the retention of placenta was the exciting cause. The patient in his case was 33 years of age, and about four weeks previously had been delivered of a four months' fœtus. Four weeks after the miscarriage slight trismus set in, which gradually increased for the next three days; on the fourth day tonic convulsions occurred, and the patient died on the next day. At the post-mortem examination the uterus was found to contain a large quantity of blood-clot and detritus and remnants of the placenta, some loosely, other pieces closely attached to the uterus.

Boyd, however, has shown that tetanic symptoms may manifest themselves without any placenta or membranes being retained *in utero*. In the case he reported ('Dublin Journ. of Med. Science,' 1874, p. 583) he is careful to show that no membranes or placenta were retained, and attributed the tetanus 'to the irritation which the brain must have suffered from deprivation of blood in an already anæmic subject.'

Lee reports a case in which bad hygienic surroundings seemed to play an important part ('Nat. Med. Journ.' vol. ii. p. 303).

Several cases have been reported in which exposure to cold shortly after abortion was evidently the exciting cause. In one case the patient was exposed seven days after confinement to a draught; in another, symptoms of rheumatism appeared before the tetanic seizures; and in a case reported by Malcolm ('Monthly Journ. of Med. Science,' Dublin, 1850, vol. x. p. 387), 'tetanus was preceded by a severe attack of tonsillitis, due to taking cold.'

The prognosis in these cases is very grave, the disease being one of the most serious physicians have to deal with. The temperature as a rule runs very high, though in Lee's case the temperature shortly before death occurred was $96^{\circ}4$. The author, in conclusion, believes that the causes mentioned are the most common ones which give rise to tetanus after abortion, though 'no one cause can be said to produce the disease.' He is of opinion that the occurrence of the disease may be prevented by taking proper precautions to insure the perfect cleanliness of the patient and her surroundings, and by regarding abortion as a more serious occurrence than we are apt to consider it.

A Contribution to the Mechanism of Descent and Flexion in Vertex Presentations. By EDWARD REYNOLDS, M.D.

There are three points which are unsatisfactorily explained in the literature of the subject, which Dr. Reynolds attempts to clear up. The points in question are: (1) the method by which flexion is produced, in the presence of a normal or excessive amount of liquor amnii; (2) the causation of descent behind the unbroken membranes; (3) the mechanism of descent and flexion in those cases in which the head enters the pelvis, in a state of flexion, during the last few weeks of pregnancy, and before true labour has set in.

With regard to flexion, he concludes that it is brought about by 'the force applied to the breech being transmitted mainly to the occipital end of the head, whether it be the force of direct contact or that of fluid pressure.' The force of gravity in some cases will come into play, and will assist in producing flexion, as it will act especially on the condyles.

In considering the subject of descent, the author points out that it is descent previous to the 'cutting off of the forewaters' that he wishes to consider. The force of gravity, he thinks, plays no part in descent. He denies the statement by Laks that with a normal amount of liquor amnii present contact between the breech and fundus is impossible. On

the contrary, it is maintained that 'contact not only can but must occur' by the gradual drawing off of the liquor amnii from the uterine cavity into the bag of membranes in the vagina. This diminution of fluid in the uterine cavity will cause retraction of the uterus, and if the head is arrested at its usual elevation in the abdomen the fundus must soon come into contact with the breech, and descent occur. The mechanism of flexion and descent in those cases in which the head enters the pelvis before true labour has set in is similar to those already described, except that tonic tension of the anterior abdominal walls will take the place of contractions of the uterus.

OBSTETRICAL SOCIETY OF NEW YORK.

Dr. E. H. Grandin read a paper on 'The Value of Electricity in certain of the Diseases of Women, and in Uterine Inertia,' in which, without going into the method of working, he describes some of those affections peculiar to women which are cured or benefited by the use of electricity. In those cases in which stimulation is required the faradic current is used, while in cases where absorption is required the galvanic current is used.

The faradic current is extremely valuable in atonic amenorrhœa, that is, in 'amenorrhœa from change of climate,' as seen especially in emigrants. In subinvolution electricity will be found to be useful, unless it is due to a badly torn cervix or a bit of retained placenta, when the indication is plainly to sew up the former and remove the latter by the curette. The author has, indeed, almost entirely given up the old methods of treating subinvolution, and now employs electricity with great success. In milder forms of endometritis electricity is of more value than any other method of treatment.

In oöphoritis and oöphoralgia galvanism is extremely useful; its effects are more certain and more lasting than the method of treatment by blisters, &c., and leaves no unpleasant after-effects.

In dealing with chronic pelvic peritonitis the author is unable to say positively whether electricity is of value or not. Certainly, in those cases of enlarged ovaries bound down by adhesions, or of dilated tubes, electricity will for a time relieve the symptoms; but in the end the case must come under the surgeon's care, and the author deems it 'the wiser and more conservative policy' to remove the offending structures as early as possible instead of waiting for them to rupture.

In conclusion he referred to the use of faradism in uterine inertia. A case is quoted in which every means had been taken to try to make the uterus contract, but without avail. When the author saw the patient he put one electrode of a faradic battery in one hand while he gently stimulated the fundus uteri with a weak current with the other electrode. In fifteen minutes the labour was completed, the placenta even being born. 'This case requires no comment.'

In the discussion which followed,

Dr. Hunter said he had frequently used electricity, with varying results. In ovarian neuralgia it was certainly soothing, and relieved the pain, but its effects were never permanent.

Dr. Peirce had had happy results in the use of the galvanic current.

Dr. Lee had used the galvano-faradic battery in premature atrophy of the uterus and ovaries, with good results. In many cases in which pain persists after the removal of the ovaries or tubes the galvanic current will be found very serviceable. But he felt bound to confess that he did not believe in electricity to the extent that Dr. Grandin seemed to, as its effects were only temporary.

Dr. Harrison said his experience of electricity was limited. In amenorrhœa electricity in his hands had failed, and in ovarian pain the relief was merely temporary. He had never tried it in obstetrics, but he had read of its use in post-partum hæmorrhage with much success.

Dr. Cleveland had the same experience to offer as the former speaker.

Dr. Morrell related a case of anteflexion in which every other means had been tried for the relief of the patient without success. Electricity, however, soon gave her great relief.

Dr. Hauks had used electricity for some time with success both in gynæcology and obstetrics. It was, however, a very inconvenient method of treatment, involving as it does so much time and trouble.

Dr. Nilsen had failed to produce the menstrual flow by using electricity. Hystero-epileptic patients were differently affected by its use.

Dr. Freeman had used electricity for twenty years, and was much impressed with its value. He thought it a pity this method of treatment was not more generally adopted.

The President (Dr. P. F. Mundé) thought faradism was limited in its usefulness, and that its effects were only temporary. The galvanic current was certainly soothing, and worth a trial in cases where much ovarian pain existed.

Dr. Harrison mentioned 'two cases of extra-uterine pregnancy successfully treated by electricity.'

CASE I.

The patient was 20 years of age, married four years, and had two children, the last being born in October 1883. After this menstruation was regular until Sept. 6, 1884, when the flow was scanty; on Sept. 20 she experienced some chills, which were followed by uterine hæmorrhage. Vomiting soon became very distressing. Temperature normal, pulse quick, expression of face anxious. Bimanual examination 'showed an elastic movable tumour situate on the right side of the uterus, the uterus itself being enlarged.' On October 19, the diagnosis of extra-uterine gestation having been made, electricity was used, the constant current being employed. This method of treatment was adopted five times in all. At the second sitting the symptoms began to improve.

CASE II.

The patient was 31 years of age, married, and had seven years previously given birth to a seven months' fœtus. Since then menstruation had been perfectly regular until February. At the end of May she was seen by Dr. Harrison for the first time. She was then complaining of hæmorrhagic discharge. On examination the uterus was found to be enlarged, and to the right of it was a swelling which was thought to be perimetric exudation. The temperature was high. A miscarriage was thought to be impending. Next day a careful bimanual examination discovered 'a somewhat rounded, soft, elastic tumour, tender on pressure, which was not fixed.' Tubal pregnancy was now diagnosed, and the galvanic current adopted as the method of treatment, with a satisfactory result.

The Surgical Treatment of large Uterine Fibroids occupying the Vagina. By Dr. CHAMBERS.

When a uterine fibroid is expelled from the uterus and occupies a position in the vagina its diagnosis and treatment are generally moderately easy provided the tumour is small. When, however, the tumour is of large size and completely fills the vagina, it is extremely difficult to diagnose between it and an inverted fundus uteri. In these cases, too, the treatment by the usual methods is difficult and dangerous, owing to the large size of the tumour. Dr. Chambers in these cases operates as follows: The patient is anæsthetised, and placed on her back. The tumour is seized by a strong vulsellum forceps, and a wedge-shaped piece is cut out with scissors. If there is no hæmorrhage, more wedge-shaped pieces are cut out until the tumour is greatly reduced in size. If hæmorrhage occurs, Pagnelin's cautery is plunged into the tumour in various directions so as to 'thoroughly cook' it. When all hæmorrhage has stopped and the tumour been 'cooked' the cutting out of wedge-shaped pieces is continued

until the tumour is greatly reduced in size, when the remainder is drawn down to the vulva and the pedicle divided. The subsequent treatment consists in iodoform and carbolised dressings to the wound for a few days, when vaginal douches are substituted. Dr. Chambers concludes by remarking that in all the cases he has operated on the tumours have been of very large size, yet he has never experienced the slightest trouble either at the time or afterwards.

JOURNAL D'ACCOUCHEMENTS.

Lying-in Charity of Liège.—Dr. Charles contributes a case of breech presentation in which the foetus was hydrocephalic and had a spina bifida. The mother was 26 years of age, has had three children, and had gone to full term with her fourth child when she came to the Maternity.

Her first labour had been a breech; the second and third, head presentations.

On the cervix beginning to dilate it was found that the presentation was a breech, the sacrum being opposite the right foramen ovale.

On the breech being born a spina bifida was seen to occupy the lumbo-dorsal region. The after-coming head was hydrocephalic, and in order to deliver it the fluid was drawn off by puncturing the spina bifida and passing a sound up the spinal canal to the head. Dr. Charles remarks that the cause of spina bifida and hydrocephalus very frequently is not recognised, and that they frequently are associated. The diagnosis of hydrocephalus is generally easy, whether the head is presenting or is at the fundus uteri. In these cases, instead of using forceps, the fluid must be evacuated by puncture of the vertex, if that part presents, or by introducing a sound into the spinal canal and passing it up into the skull if the head is last.

Albuminuria and Anasarca in a Primipara.—Dr. Charles reports the case of a primipara suffering from albuminuria. She was a married woman, aged 40 years. When first seen by a medical man she was advanced seven months in her first

pregnancy. She was pale, anæmic, though she said her health had always been good. When about six months advanced in pregnancy she noticed her feet and ankles were swollen. The urine was slightly acid, not very abundant, specific gravity 1010, and contained 8 grammes of albumen to the litre. The foetal heart-sounds were heard through the abdomen in the left iliac fossa, but no foetal parts could be felt, owing to the thickness of the abdominal walls. On vaginal examination the foetal head was felt presenting in the L. O. A. position. The patient was put to bed, and milk diet with purgatives ordered; but as her state gradually became worse, a sound was passed into the uterus and premature labour brought on. About forty hours after the introduction of the sound into the uterus the patient was delivered of a live male child. The condition of the mother after this gradually improved, and about three weeks after the admission of the patient into hospital she left perfectly well, all trace of albumen having disappeared. Dr. Charles remarks that it is still an open question whether premature labour should be induced in women suffering from albuminuria. Against the induction of premature labour it may be urged (1) that every pregnant female with albuminuria does not of necessity suffer from eclampsia; (2) eclampsia occurs chiefly in primiparæ, and to bring on labour demands a certain length of time; (3) the irritation produced by the induction of premature labour is dangerous, and is occasionally the cause of convulsions.

Practical Considerations on a Series of twenty-five Ovariectomies followed by Cure. By Dr. THIZIAR.

A table of the twenty-five ovariectomies is given showing various points in the history and operation of the cases. The author remarks that the possibility of pregnancy must be borne in mind when one has an obscure abdominal tumour to deal with, especially in those cases in which there is suppression of menstruation. The less time occupied in performing the operation the greater the chance of success.

The author's average time was half an hour. The urine should be examined and an estimation of the chlorides made. Shock and vomiting can generally be prevented by administering an hour before the operation a mixture of chloral and laudanum.

Chorea during Pregnancy ; Provoked Labour. By Dr.
WASSEIGE.

The patient, 23 years of age, had advanced to about the seventh month of pregnancy, when she was considerably frightened, and fainted. On recovering from the swoon she complained of involuntary contractions of the muscles of the face and tongue. Three days later the upper limbs, especially the left side, became affected with similar choreic movements, which became so violent that the patient was put into a strait-waistcoat to try and restrain the movements. As the movements became aggravated, and the patient was gradually sinking, it was decided to induce labour, in the hope that the patient might be benefited. The result of the labour was a dead fœtus, which had evidently been dead some time. At the time of delivery the patient became extremely collapsed, and half an hour afterwards was seized with violent convulsions, in which she died.

BIRMINGHAM MEDICAL REVIEW.

In an interesting and able article, entitled 'On the Unsatisfactory Results of Unilateral Removal of the Uterine Appendages,' by Mr. Lawson Tait, we are given the history of twenty-seven cases of abdominal section, with the result in each case, and the deductions drawn therefrom.

The cases which have been presented to us were operated upon prior to December 1884, so that sufficient time has elapsed on which to base conclusions as to the advisability or inadvisability of removing the appendages on one side only, or both sides, for chronic inflammatory disease. The cases operated on number twenty-seven, all of which recovered but

one; so that we are left with twenty-six to draw conclusions from.

These twenty-six cases are made up of—abscess of the ovary, 1; chronic ovaritis with adhesions, 2; hæmatosalpinx, 4; hydrosalpinx, 4; pyosalpinx, 15. Four of the twenty-six cases were single, but not virgins; twenty-two were married women. Of the twenty-two married women nine only had given birth to children before being operated on, while three have become mothers since the operation. The history of these twenty-six females subsequent to their first operation is remarkable, and seems to leave no doubt whatever that in operations for the removal of the uterine appendages for chronic inflammatory disease the uterine appendages of both sides should be removed at the first operation. Of the twenty-six cases 'a second operation has already been required in one case of hydrosalpinx, one case of hæmatosalpinx, one case of chronic ovaritis, and one of pyosalpinx.' Five of the cases of pyosalpinx have since died from acute peritonitis, due to rupture of the tube not removed at the first operation, the tube having evidently become diseased; while the author is satisfied that an operation for the removal of the appendage is required in seven other cases.

The author admits that this list of twenty-six cases, with their unsatisfactory results, is hardly large enough upon which to base or form conclusions, but it seems to point to the fact that 'if a patient is suffering sufficiently to justify abdominal section for chronic inflammatory disease of the uterine appendages, and one side only is found to be affected, the operation, to be of that lasting and complete benefit to the patient which we desire all our operations should have, must be made bilateral.' This article, which contains the list of operations, results, and remarks thereon, also contains the history and physical examination of each separate case; is extremely interesting, and well worth careful perusal.

THE AMERICAN LANCET.

On Normal Ovariectomy. By Dr. BATTEY.

In an editorial some of Dr. Battey's early experiences in performing this operation, and the great opposition he encountered, are related. He narrates how, 'whilst engaged in nursing assiduously, as I did, my first patient, spending ten days at her bedside, without leaving the house for a moment, even for change of linen ; during this time of great suspense and anxiety, in the office of one of my brother practitioners were held nightly meetings of the profession of my town, receiving reports of the condition of my patient, awaiting her demise with anxious longings, in order to institute proceedings in our court and to put me before the bar as a criminal.'

Before proceeding to perform the operation the three following questions must be put and satisfactorily answered by the operator : (1) Is this a grave case? (2) Is the case curable by resources of our art within reach? (3) Is it reasonable, is it physiological, is it logical, to expect that the extirpation of the ovaries would probably cure the case? If after due consideration the answer is satisfactory, you have a fair case for operation. Minutest details must be carefully attended to, and cleanliness, order, and method must everywhere prevail.

Rules for Opening the Abdomen. By Dr. GAILLARD
THOMAS. ('Medical News.')

(1.) Every exploratory incision should be made under the strictest antiseptic precautions. As to strict cleanliness all are agreed ; if antiseptics of chemical character are valueless, they at least, in all probability, do no harm ; give the patient the benefit of the doubt and employ them. (2.) Always employ an anæsthetic, lest the complaints of the patient should frustrate the investigation, or at least render it superficial and uncertain. (3.) Always make an incision which

will admit the whole hand; one which will admit two fingers only is hardly warrantable. If possible, let but one man's hand be passed into the abdominal cavity. (4.) Never hurry an exploratory incision, but never prolong one unnecessarily; let discussion as to diagnosis occur after the peritoneum is closed, not while it is open.

Presentation of the Fœtus other than the Head a cause of Miscarriage at the fourth or fifth month. By Dr. JUDSON BRADLEY.

Dr. Bradley in this article 'does not claim that every footling presentation of a fœtus is necessarily bound to cause miscarriage,' but he thinks that a certain proportion of such presentations do fail to reach term, and are aborted at or about the fourth or fifth month of pregnancy, on account of the feet pressing against the thin almost non-resisting membranes, causing their rupture, and consequent escape of liquor amnii. Out of over thirty non-vertex cases carefully watched and noted by the author, four are recorded in the present paper, and seem to illustrate best the fact which has seemed to him sufficient to be the cause of late abortions.

Fœtal Therapeutics. By T. C. SMITH, M.D.

The author, after discussing the relation between the maternal and fœtal circulation, and the influence that certain diseases—as syphilis, scarlatina—have on the life and growth of the fœtus, concludes as follows:—

'1. That remedies administered to the pregnant woman find their way by osmosis to the fœtal circulation, and therefore will influence the fœtus quite promptly.

'2. It is probable that the influence will be proportionate to the dose taken by the pregnant woman, and that we should therefore exercise care in all remedies given to such women.

'3. In pregnant women, with decided syphilitic taint, the continued or persevering use of proper remedies tend decidedly

to preserve the viability of the fœtus to the end of the puerperal term, and to prepare its blood and tissues to be brought forth in a purer state than it possibly could be without such treatment.

‘4. Any recognised dyscrasia of the mother that is likely to destroy the fœtus may often be met, and fœtal viability secured to the end of term.

‘5. In cases of fatty degeneration of the placenta, where, therefore, the placental respiration is insufficient to maintain fœtal life to the end of the term, we may hope by the use of proper remedies given to the mother to increase the respiratory capacity of the placenta, and thus retain fœtal viability to the end of term.

‘6. The violent and threatening movements of the fœtus may be controlled by giving proper remedies to the pregnant woman.

‘7. The administration of any powerful agent to the mother may lead to the death of the fœtus, if too largely given.

‘8. The fœtus may be affected by contagion in the pregnant woman’s system, when she herself does not contract the contagious disease ; as in the case of Mauriceau, as given by Leishman, quoted from Mauriceau himself.

‘9. The fœtus is often destroyed by constitutional and contagious diseases that attack the pregnant woman, or to which she has been exposed, as in small-pox, scarlatina, rubeola, &c.

‘10. “Occasionally the child, when thus affected, passes safely, while *in utero*, through a full course of small-pox, and is at length born with the pits of the disease alone remaining. I vaccinated repeatedly a person born under these circumstances, and always unsuccessfully.”¹

‘11. “This affords presumptive proof that variolous, and perhaps other contagious febrile matters, affect the body by first entering the vascular system.”²

¹ Sir J. Y. Simpson’s *Obstetrical Works*, vol. ii. p. 360.

² *Loc. cit.*

‘12. “That the morbid matter can only thus pass from the mother to the fœtus through the medium of the circulation, for there is no communication by the nervous system between the economy of the mother and that of the fœtus.”’

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

From this journal we abstract three cases of puerperal eclampsia reported in an article entitled ‘Clinical Notes from a General Practice,’ by Dr. Bahnson.

CASE I.

A. B., aged 19, a coloured woman, delivered of her first child. About an hour after her confinement the patient was seized with a convulsion. Altogether she had three convulsive attacks, in the last of which patient nearly bit her tongue in half. A large quantity of blood was lost, and after great difficulty the hæmorrhage was arrested. ‘The girl lost at least three pints of blood, had no more convulsions, and without further treatment made a speedy recovery.’

CASE II.

Patient was aged 36 years ; a multipara. Was delivered of twins after a short labour. Eight hours after delivery was seized with convulsions, which were quieted by the hypodermic injection of $\frac{1}{3}$ grain of morphia. Some hours later patient again began to get very restless, and complained of severe pains in head. Morphia, $\frac{1}{4}$ grain, relieved her. A profuse flow of blood from the uterus took place, after which the patient calmly slept, and some hours later was comparatively well.

CASE III.

The patient was a primipara, aged 19 years, a full-blooded individual. There was no complication during labour, which was successfully terminated. Half an hour after, with-

out any warning, a violent convulsion seized the patient. Twenty-four ounces of blood were abstracted from a vein in the bend of the elbow, and the patient was restored to consciousness.

Dr. Bahnson remarks that in his practice bleeding has always led to a successful result, if done promptly and sufficiently; and in the only two cases of death from convulsions that he has seen, bleeding was not resorted to sufficiently. He advocates the abstraction of certainly not less than one pint, and believes the patient's chance of recovery will be greater if two pints be withdrawn from the circulation. Chloroform, morphia, &c., he only accepts as adjuvants.

THE OBSTETRIC GAZETTE.

Alexander's Operation. By Dr. THOMAS ASHBY, Professor of Gynæcology in the Baltimore Polyclinic, &c.

The author, after opening his paper with remarks as to the position of the uterus in the pelvis, goes on to the anatomy of the uterus and its supports. Of the so-called ligaments of the uterus the author is of opinion that 'the broad ligaments undoubtedly exercise an influence in the prevention of versions and flexions'; 'the utero-sacral and utero-vesical ligaments are simply folds of peritoneal tissue,' and exercise no influence; 'the round ligaments undoubtedly exercise a strong influence in preventing posterior displacement of the uterus.'

In 1840 Alquié, a French surgeon, proposed, but never carried out, the operation; and it was not until 1881 that Alexander, of Liverpool, first performed the operation of shortening the round ligaments for the cure of uterine prolapse. A single case is then reported which was operated on by Dr. Ashby with success, the patient making a rapid recovery, and being free from any uterine complaint, though no subsequent examination was made to see what position the uterus was in. He then asks the question, 'How long will

it remain in its normal axis?' and answers by saying, 'The remainder of her natural life.' As has been remarked above, no examination was made on the patient's recovery to see that the uterus was in the axis of the pelvis; so that Dr. Ashby is hardly in a position to assert that because the round ligaments were shortened and the uterus brought more forward it must of necessity always remain there. Dr. Ashby is doubtless well aware that frequently, after Alexander's operation is performed, the round ligaments stretch again and allow the uterus to fall back into its abnormal position. The author concludes as follows:—

(1.) The round ligaments are designed to hold the uterus in its axis in the pelvis and to draw the fundus of the organ toward the symphysis pubis.

(2.) Shortening the round ligaments is a practical method by which the uterus may be lifted into its normal axis.

(3.) The operation is admissible in all cases of posterior displacements, where the uterus is not fixed by adhesions.

(4.) The operation is of little value in cases of prolapse, except when employed in conjunction with other methods instituted to overcome this form of displacement.

(5.) The operation can be easily performed. It is almost devoid of danger if ordinary safeguards are employed.

(6.) The benefits are striking and important when the operation is limited to suitable cases.

Cure of Chronic Peritonitis by Drainage. By Dr. BELJAEFF.

The patient was aged 32 years, and after an abortion suffered from peritonitis. Ascites ensued, and the abdomen was twice tapped, with no relief. It was then decided to open the abdomen. The parietal and visceral layers of the peritoneum were thickened and more vascular than usual. There was a small amount of fibrin and blood-corpuscles in the fluid. The peritoneal cavity was washed out with a 1.30 per cent. of sublimate solution and drainage effected *per vaginam*. In three months' time the cure was complete.

Pelvic Measurement. By Dr. H. A. KELLY.

Dr. Kelly called the attention of the Obstetric Society of Philadelphia to a method of measuring the conjugata vera which he had found of extreme value. In many cases where there was cellulitis, or cicatricial contractions, or a short vagina, it is very difficult, and in some cases impossible, to reach the sacral promontory with the examining finger and obtain the C. V. from the C. D. Dr. Kelly's method is easy, and in many cases invaluable, and saves a vaginal examination. The method consists 'in pressing deeply with the finger tips of the extended hand until the promontory of the sacrum is felt (by the abdomen), then by slipping the fingers up and down over this until the relations are well appreciated; let the fingers rest vertically above the angle, and at the same time mark on the palm with the finger of the other hand the position of the posterior surface of the symphysis, also vertically below.' This measurement will give the C. V. directly measured.

CHICAGO GYNÆCOLOGICAL SOCIETY.

NOVEMBER 1886.

Dr. Jaggard read a paper on a case of chronic inversion of the uterus of twenty-one months' standing reduced by colpeuryesis. The patient was a married German woman, 36 years of age, had seven children, no miscarriages. All her previous confinements were normal, the patient rising on the third day. Her seventh confinement occurred in October 1884, when she was attended by a midwife, who delivered the placenta by traction on the cord. The patient, two days after delivery, became feverish, and a physician was called in. Puerperal fever was diagnosed and the usual treatment adopted. Next day another physician was called in, who confirmed the diagnosis, though no vaginal examination had been made by either practitioner.

Three weeks after delivery the patient rose from her bed, and four weeks later resumed her work as a washerwoman. She now experienced for the first time bearing-down pains and a sensation of a foreign body within the vagina, and a fleshy mass was felt in that passage. The child was weaned in December 1885. About March 1886 patient had a severe flooding, lasting six days. This was thought to be the re-appearance of the catamenia. April 15, another hæmorrhage lasting six days occurred. In May the patient came under Dr. Jaggard's care, and *inversio uteri* was diagnosed.

To replace the fundus, taxis was first tried, but failed altogether. Colpeurysis was then tried, the result being that at the end of thirty-three days the fundus was returned. On three occasions during the treatment the temperature rose to 102° , but fell immediately on douching the vagina and disinfecting the colpeurynter. Micturition and defæcation were not interfered with by the presence of the colpeurynter in the vagina.

DISCUSSION.

Dr. Adolphus thought that the method of replacing the inverted uterus by the colpeurynter was as safe and efficient as any. To replace the inverted organ, pressure on some part of the uterus should be gentle, but continued and steady. Old adhesions preventing the return of the uterus are rarely present. The diagnosis of these cases was always important, and frequently of great difficulty, and should be made with the patient fully anæsthetised.

Dr. Merriman wished to know whether, after the uterus had been partially restored, taxis would not have completed the operation satisfactorily.

Dr. H. T. Byford had seen a rise in temperature when the colpeurynter was used, but on cleansing the instrument and vagina the temperature immediately declined. He objected to the introduction of the hand into the rectum to diagnose a case of inversion, as suggested by Dr. Adolphus.

Dr. W. H. Byford said that with regard to the diagnosis

between polypus and inversion of the uterus, when polypus was present the uterus was generally enlarged, and its fundus was on a level with the pubis. A polypus feels as if covered by a smooth shining membrane, while the surface of the uterus feels as if it were covered with velvet or plush. Several cases were related which happened in his practice, in which replacement by colpeurynter succeeded. An important point to note in using the colpeurynter was to see that the uterus was in the axis of the inlet before attempting to use the instrument.

Dr. Sawyer mentioned a case that had occurred in his practice. He thought the diagnosis of recent or puerperal inversion easier than that of chronic.

DECEMBER 19, 1886.

Dr. H. T. Byford exhibited (1) a proliferating ovarian cystoma. (2.) Parovarian cyst and appendages, complicated by a uterine fibroid. One ovary was enlarged and diseased; the second was removed on account of the fibroid, which was the size of an orange. (3.) Ovarian cyst in the broad ligament containing the degenerated ovary. The tumour developed from the surface of the ovary between the layers of the broad ligament in the direction of the uterus. The remainder of the ovary was a multilocular cyst the size of a large orange. The tumour had been mistaken for pregnancy. (4.) Suppurating ovarian adenoma. An attempt had been made to remove the tumour previously, but without result. At the autopsy it was found to be surrounded and intermingled with pus cavities and intestinal loops. The left broad ligament was a mass of inflammatory tissue. (5.) Fibro-sarcoma of the left horn of the uterus, lungs, pleura, pericardium, rectum, transverse and descending colon, and abdominal parietes.

Dr. Jaggard exhibited (1) unilocular cyst of right ovary, the remaining ovarian tissue showing corpus luteum of menstruation. Menstruation had ceased three days before the operation. The specimen was interesting, though not exceptional. The left ovary was normal, and not removed. (2) A placenta, showing velamentous insertion of the umbilical

cord, and remains of extensive hæmorrhage into the parenchyma of the organ. Dr. Jaggard thinks the origin of velamentous insertion of the umbilical cord as stated by Schultze is the correct theory. Velamentous insertion is most often seen in multiple pregnancy. It seldom interferes with the development of the foetus. In the specimen presented the cord is inserted into the chorion about 5 centimetres from the placental edge. The life of the child was endangered by one of the vessels being torn about the end of the first stage of labour.

Dr. J. H. Etheridge read the notes of a case of anterior vaginal enterocele. The patient was 20 years old, had had one child eleven months since. When about six months gone in pregnancy she noticed something come down through the vagina while skipping one day. The tumour comes down on straining or lifting any heavy object. Examination *per vaginam* showed that there was an opening in the roof of the vagina, the edges of the ring being easily felt. The opening was to the left of the uterus, anterior to the broad ligament, posterior and to the left of the bladder. A Fowler's pessary was fitted and answered well. Dr. Etheridge did not advise any operation while the instrument answered its purpose.

DISCUSSION.

Dr. Adolphus: This kind of hernia is much more infrequent than a hernia into Douglas's pouch. These herniæ seldom become strangulated. During labour the intestines are apt to become contused. A surgical operation should always be undertaken in these cases, as instruments only increase the size of the vagina and make matters worse. No text-books enter into the question of operation, but he thought Stoltz's operation for cystocele the best.

Dr. H. J. Byford thought Dr. Etheridge quite right in rejecting abdominal section for the relief of this condition, and an operation *per vaginam* would not be permanently successful. The treatment by pessary he thought the best. If any operation were attempted he would advise Alexander's operation.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Dr. H. H. Witcomb read a report on 616 cases of labour in private practice, attended by himself. There had been no maternal deaths, and only two still-born children. Forceps were used in two cases only. There were no twins. There was one case of elbow presentation, one shoulder, one face and hand, and three breech presentations. Placenta prævia was present in two cases at full term and in two miscarriages. Puerperal convulsions, two cases. There were thirty-two of puerperal fever, but no death. These all occurred in one spring, the epidemic commencing suddenly and ending as suddenly. There were four cases of post-partum hæmorrhage. He ascribed his success to patience and the avoidance of meddling and not using antiseptic injections.

A Year's Work in Ovariectomy. By Dr. GOODELL.

The author in a year has performed 59 laparotomies, 39 of which were ovariectomies, with three deaths. One of the deaths occurred on the operating table. The second death was due to obstruction of the bowels in a case of large fibroid of the uterus and ovarian cyst weighing sixteen pounds. The remedies he generally used in cases of obstruction were calomel and belladonna by the mouth and turpentine by the rectum. The obstruction is due to adhesions formed between the intestine and the pedicle, abdominal wound or some denuded surface. The third death occurred in a case of malignant cystic disease of both ovaries. He thought these malignant cysts should always be removed, and the experiences of Schroeder and Martin confirmed that belief. He thought all incomplete operations should be recorded as exploratory incisions. His cases had all been operated on as they presented themselves, except in one case, where he had refused to operate as the patient was suffering from epithelial cancer of the cervix. The author believes in

operating as soon as ovarian disease is diagnosed, and he also thinks better results are to be obtained by the use of Listerism than by omitting it.

DISCUSSION.

Dr. Parish mentioned some cases in which adhesions had been formed by tapping, and he thought aspiration was still too frequently done. He has seen cases in which malignant disease occurred after removing what had seemed a benign tumour.

Dr. H. A. Kelly also thought tapping did great harm. He thought the excellent results that are now being obtained in America due to antiseptics. The tumours operated on in America are more difficult than those operated on abroad.

Dr. Montgomery did not look with favour on tapping ovarian cyst, or even broad ligament cysts. A case was mentioned that had been tapped seven times by him before the patient finally submitted to abdominal section.

BALTIMORE GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY.

Dr. Neale exhibited a *fatal monstrosity*, alive and about a month old. The deformity, he thought, was due to maternal impressions received during the second month of gestation. The mother was a mulatto woman, aged 26 years, married, mother of five children, all of whom are perfectly healthy. No physical abnormality in father. During the second month of pregnancy patient had been to see and was much interested in an exhibition of sea-lions. The labour at full term was natural. The fœtus was a male and rather small.

All parts of the body are natural except the two upper extremities. 'The left forearm is aborted in its development, the radius and ulna being indistinct, the elbow-joint ankylosed, and the hand terminating in two fingers webbed together, with nails complete and thumb freely movable. The arm is bent back, hand flexed and pronated, wrist-joint imperfectly formed, with thumb downward somewhat like the flap of a seal.

‘On the right side both arm and forearm are wanting. An aborted hand, composed of an irregular finger with no nail, and thumb with nail, springs directly from the shoulder-joint, which is movable.’

Dr. Neale made some observations on Unitarian monsters or Autosities as described by Tarnier and Saint-Hilaire, but did not think his case could be included in any of the types described by them.

CANADA MEDICAL AND SURGICAL JOURNAL.

Aseptic Midwifery. By Dr. J. C. CAMERON.

In the March number of this Journal is an article bearing the above title, which contains one or two interesting points. Dr. Cameron divides the methods for preventing sepsis occurring in the lying-in female into two : (1) The *aseptic*, or dry method, which has for its object the exclusion of germs, and is therefore preferable, and requires great care, sometimes failing in spite of every precaution. (2) The *antiseptic*, or moist method, which aims at destroying the germs and their products by frequent antiseptic vaginal douches, thus preventing the accumulation and absorption of foul matters. The absorbable septic agents are : (1) Specific microbes, which multiply rapidly and invade the whole body, even when absorbed in small quantities. (2) Ptomaines or ferments, often the product of microbes acting upon the tissues. (3) Pyogenic cocci, which penetrate rapidly and in large numbers, and may or may not produce metastases. The most important of them is the *Streptococcus Pyogenes*, which, under favourable circumstances, seems capable of rivalling the bacillus anthracis in virulence. Dr. Cameron says that though the exact relations between micro-organisms and septicæmia have not yet been definitely settled, yet in whatever way the question may be decided in the future, the evidence at present seems to show that (1) no septic microbe has yet been discovered invariably present in puerperal septicæmia ; (2) septic

cases can seldom be classed clinically as purely toxic or purely infective, but that usually several causative factors are present; (3) clinically, infective matter which produces a local abscess in many cases may cause moderate constitutional symptoms in a second, or such profound disturbance in a third as to terminate rapidly in death.

The following is the method followed by Dr. Cameron in all midwifery cases: The hands are washed and disinfected before each vaginal examination; a vaginal sublimate douche is given at the beginning of the second stage of labour; after the birth of the child the vulva is carefully covered with a pad of sublimated jute, and is washed with a sublimate solution every time the pad is changed; a few hours after delivery the vulva and vagina are thoroughly irrigated with the sublimate solution, and about a drachm of boro-iodoform insufflated into the vulva and ostium vaginae, and a fresh pad of sublimated jute placed on the vulva.

If from the third to the sixth day the temperature rises, sepsis may generally be inferred, due to the retention of blood-clots or placental *débris* which are undergoing decomposition. If due to blood-clots an injection into the uterus will suffice to wash away the noxious material, and the temperature will soon fall; but if the temperature continues high placental *débris* may be suspected. In this case the douche will not detach the remains from the uterine walls, and Dr. Cameron, following in the footsteps of the Germans, especially Braun, uses the curette to remove all placental remains. In all the cases in which he has had occasion to use the curette the temperature has rapidly fallen; in several streptococci have been found in abundance, and he considers that without the use of the curette the chances of the patient would have been slight.

ARCHIVES OF GYNÆCOLOGY.

Double Vagina and Uterus. By Dr. SEVVOFF.

This was the case in a prostitute, aged twenty-two, who was admitted into hospital for chronic endometritis. A

septum with a semi-lunar edge began just above the entrance to the vagina, and divided that canal into two halves, the left being the larger. Each vagina had its apex and cervix, that on the right side being about the normal size and in the ordinary situation, while the left cervix was small and bent to the left. The cavities of the two uteri did not communicate, and when, a few days after admission, the catamenia came on, blood was seen to flow from the orifice of each cervix.

Pelvic Inflammations. By Dr. W. G. EWING.

After shortly reviewing the anatomy of the pelvic organs, the author proceeds more fully into the distribution of the cellular tissue and serous membrane in connection with the organs of generation. He is of opinion that, considering the anatomical relations existing between these structures, it is impossible for 'an extensive cellulitis to exist without the peritoneum becoming sooner or later involved to some extent, and *vice versâ*,' though the inflammation will predominate in either one or other of the tissues.

As regards the etiology of pelvic inflammation it is a secondary affection, the result of septic absorption, or the result of extension of inflammation from the Fallopian tubes or ovaries. Septic absorption after parturition plays the chief part in the production of this disease; gonorrhœa also plays an important part, though the author believes it does not bring about inflammation as frequently as some would have us believe. Noeggerath has doubtless over-estimated the effect of gonorrhœal poison in the production of pelvic inflammation. Especially is this the case with regard to his so-called 'latent gonorrhœa'; but Noeggerath's views have been of great service to the profession, as they have impressed on the profession the fact that gonorrhœa does set up pelvic inflammation.

Imprudence during the catamenial period, ovaritis, excessive venery, traumatism, are other causes which set up pelvic inflammation.

When the inflammation involves the cellular tissue mainly, the pathological changes are the same as in inflammation of other cellular tissues—congestion, effusion, and suppuration—though the process may reach only the first or second stage, and end in resolution by absorption.

The symptoms, physical signs, and diagnosis of this affection are the same as those given by most of our text-books, so that we need not trouble our readers with them. With regard to the treatment, Dr. Ewing prescribes perfect rest in bed, morphia hypodermically, warm poultices, and hot water vaginal injections administered freely. Aconite is of great service if the temperature rises. When suppuration ensues nourishing diet, with iron and quinine, are indicated, together with brandy should the strength be much diminished. If an abscess be formed it should be opened and evacuated immediately ; it matters not whether the opening be made through the vagina, rectum, or abdomen. Later on, if adhesions are present, and the tubes or ovaries are much diseased, laparotomy should be resorted to.

Incomplete Laceration of the Perinæum.

By Dr. S. J. DONALDSON.

The author maintains that though the perinæum is generally supposed to play an important part in upholding the pelvic viscera, and especially the uterus, it acts in no way as a support. It is as reasonable, he says, to suppose that the 'heart and lungs rest on the diaphragm, or that the stomach is upheld by the intestinal tube, as to argue that the pelvic organs in health rest upon the pelvic floor, or that the vagina sustains any part of the weight of the uterus.' In health the uterus is suspended from its attachments in the hollow of the sacrum, so that it is posterior to the line of action of intra-abdominal impulses and weights, which act upon the pubis and anterior abdominal wall.

The perinæal body cannot directly support the vagina and uterus, as is asserted by some, for the perinæal body only

reaches to a certain distance up the posterior vaginal wall, leaving part of that wall unsupported, while the uterus has no support whatever from the perinæal body.

Dr. Donaldson believes that complete rupture of the perinæum has not the same amount of influence in producing prolapse as a partial tear has, for this reason, that in complete lacerations the septum between rectum and vagina is done away with entirely, whereas in partial rupture the septum remains, only much thinned. This septum is gradually stretched by the lodgment of fæces and intra-rectal pressure, which bulges out the septum, causing a rectocele to form. As the rectocele becomes more and more marked, the septum drags on the cervix, and so pulls the uterus out from the 'dome of the sacrum' downwards and forwards. This displacement of the uterus from under the sacrum brings it into the vaginal axis, and allows intra-abdominal pressure to come into play, thus causing the uterus to gravitate still further in the vaginal canal.

The mischief begins with the loss of fascial tension at and around the seat of lesion. Gradually other neighbouring tissues become involved, until finally remote ones are implicated. When rectocele does not hasten the process, the tissues at the lower end of the vagina are affected and the retro-pubic segment descends, so that a cystocele forms and so drags down the uterus. The author goes fully into all the muscles, ligaments, &c., which are in relation with the perinæal body and pelvic floor, and the probable part played by each.

The lesion may be of two kinds: (1) when it affects the central structures of the perinæum, (2) when the edge of the perinæum only is torn.

The second variety occurs in multiparæ and in some fleshy women, and may seem of importance; but as only skin, fat, and areolar tissue are affected, and not the central fibro-elastic body, no harm results.

In the second variety of lesion highly contractile structures have been torn through, and it is extremely difficult, if not

impossible, to get union of the surfaces of the wound by first intention. The wound heals by second intention, and leaves a tear generally crescentic or V-shaped, though when the body of the perinæum is involved, a Y-shaped scar is most frequently found. Then there are some cases in which the perinæal body has been lacerated but there is no surface-wound. Here the laceration has occurred submembraneously, as will be evident if the septum be taken between the finger and thumb, when it will be found that the perinæal body has almost entirely disappeared and scarcely more than the membranes interpose. A description of the operation is given in full, with the four different ways in which hæmorrhage may be controlled: (1) Traction on the suture last adjusted; (2) Steady counter-traction of the tissues; (3) Traction combined with pressure of the finger in the rectum; (4) Exposure to air. By these means hæmorrhage can in most cases be completely controlled without the use of pressure forceps. The sutures, usually about three in number, are disposed from above downwards, and are removed at the end of ten or twelve days. Dr. Donaldson uses ether or hypodermic injection of cocaine, when the sutures are to be removed, in order to spare the patient any pain. Whale tendon has been used for the sutures in preference to silver wire. The sutures are absorbed about the end of a week and the shot used instead of tying a knot are washed out with the first injection.

A description of the operation, with diagrams, is inserted, but we have given a description of the operation in another part.

Puerperal Fever Microbe. By Dr. NOEGGERATH.

The author read a paper before the New York Obstetrical Society of a case of puerperal fever in which he discovered a microbe in the lochial discharges identical with similar organisms found in the overflow pipe of a basin. The patient's surroundings were supposed to be healthy. A dressing-room communicated with the lying-in chamber, and in the dressing-room was a stationary basin, the holes in

which were all securely plugged in order to eliminate every source of infection. The patient after delivery did well for some days, when she suddenly developed a chill and high temperature and other symptoms of sapræmia. The lochia were examined and found to contain a micro-organism, dumb-bell in shape. The plugs were removed from the holes in the basin and scrapings taken from the overflow pipe and examined. Microbes identical with those found in the lochia were found, so that a direct relation was thus established between the emanations from the pipes and the sapræmic condition of the patient. As no use had been made of the basin since the plugging of the holes, Dr. Noeggerath concludes that the microbes were present in the air long before they entered the genital tract of the patient, and that the lying-in chamber should never communicate with a bath-room or closet if we wish to procure perfect security against micro-organisms.

Hegar's Sign of Early Pregnancy. By Dr. MITCHELL.

To diagnose pregnancy during the early months is frequently a matter of great difficulty and consequence, and any sign upon which the profession can rely implicitly in the diagnosis of an early pregnancy must be of value.

Since Hegar first laid stress on what has been termed Hegar's sign, various practitioners have tried the value of it: thus Dr. Reiul has found it has failed in only two out of twenty-two cases; Dr. Grandin is inclined to 'consider it infallible.'

Dr. Mitchell has diagnosed pregnancy correctly in the early months in nine cases that have come under his notice: in two of them pregnancy was not even suspected, while in another the patient had been informed by her medical attendant that she was not pregnant. The sign consists in the uterus losing its pear-shaped outline, 'the body being bellied out over the cervix in all the transverse diameters, especially antero-posteriorly.' The examining finger will

best 'note the change in the anterior *cul de sac* of the vagina.'

Extra-uterine Pregnancy.—Dr. E. A. Kemp, in the Boston 'Medical and Surgical Journal,' relates the case of a young woman, married three months, who was seized rather suddenly with faintness, pains in the stomach, and symptoms of dyspepsia. Her periods had always been regular, the last period having ceased two days previously. Medicines were prescribed for her, but she gradually sank, and died about thirty-six hours after the first appearance of pain. At the post-mortem the pelvis was found full of dark fluid blood, and, on removing it, a tubal pregnancy, of about six weeks' duration, was found in the right Fallopian tube. The ovum was about the size of a hen's egg, and was lodged in the interstitial portion of the tube. The mucous membrane of the uterus was velvety and hypertrophied, but its walls did not appear at all increased in thickness.

Antipyrine in Puerperal Fever.—Dr. Paul Mundé is satisfied that the repeated use of antipyrine in puerperal fever has saved the lives of more patients than any other drug. He never begins with a larger dose than 20 grains if the patient is strong, and 10 grains if the patient is below par. This is followed by doses of 5 grains, repeated every half-hour or hour until 20 grains have been administered. The pulse must be watched, and on any diminution in the strength of the pulse taking place the drug must be discontinued and stimulants used. In addition to the antipyrine, ice-cold water is applied to the head whenever the temperature rises. He is convinced that quinine has had but a small share in the recovery of patients suffering from puerperal septicæmia.

Hypertrophy of the Nymphæ. By Dr. VIRGIL HARDON.

The patient was a coloured woman, 33 years of age, was married at 20, had one child a year after marriage, none since. Catamenia always regular. No history of syphilis. Patient complained of a tumour on each side of the vulva,

which had first appeared one year ago, and interfered with locomotion, micturition, and coition. Examination showed both nymphæ enlarged, with rough and rugose surface. The mucous membrane was deeply pigmented, and the same colour as the true skin, the patient being a mulatto. The clitoris was not involved. Diagnosis was elephantiasis. The tumour was removed, and microscopical examination showed that the tumour was not elephantiasis, but a conversion of mucous membrane into true skin, all its structures being extremely hypertrophied.

Hypertrophic Elongation of the Isthmus Cervicis.

By Prof. GOODELL.

According to Prof. Goodell this affection is not an uncommon one, and is chiefly found in women who are supposed to be suffering from prolapsus uteri and who have received some injury, as laceration of the cervix during childbirth. In these cases the projecting cervix resembles the snout of a pig, while, when the hypertrophy occurs in the virgin, the conical cervix resembles somewhat the male organ in a state of erection. Another cause of this affection is lifting heavy weights, and is often seen in washerwomen who carry heavy baskets of clothes. Prof. Goodell believes that it is an affection more common in the lower classes than in the richer. He has only seen one such case in a person in affluent circumstances.

As regards the treatment, in the early stage, when the disease is just commencing, a Hodge pessary with the curved end forwards may be of some service ; but if the hypertrophy has advanced beyond a certain point pessaries are of no avail whatever, and an operation is the only means by which the patient will be benefited. Emmet's operation for lacerated cervix will produce the desired effect in many cases in which the hypertrophy has occurred after childbirth and the cervix has been torn, but in other cases amputation of the vaginal portion of the cervix must be performed. In performing this operation Prof. Goodell draws down the uterus by passing a double silk ligature through the cervix just below the bladder ;

a rubber tube is next wound several times round the cervix to prevent hæmorrhage, and the cervix then amputated with a scalpel. Hegar's method of stitching is preferred to any other for uniting the raw surfaces. The stitches are of silver, and are clamped with shot. The only objection to this method is that secondary hæmorrhage sometimes occurs, but it can be restrained by immediately plugging the vagina.

JOURNAL DE MÉDECINE DE PARIS.

Endometritis and its Treatment. By Dr. DOLÉRIS.

The author concludes: (1) Endometritis is the initial lesion in inflammation of the uterus. (2) It remains permanent in chronic inflammation. (3) In acute metritis, and the early period of chronic metritis especially, the inflamed mucous membrane is the part which, constantly renewed, supplies the secondary morbid parts: the uterine muscular tissue, the lymphatics, the peritoneum, and parametrium. (4) Occlusion of the os, whether mechanical, spasmodic, or organic, when it is present, causes retention of the septic products and favours reabsorption. (5) Spontaneous cure of chronic metritis is rendered very tedious and difficult, owing to the depth of the lesions which react to the glandular *culs de sac* by the return of the menstrual periods, and by the atony of the muscular tissue, which, instead of helping in the cleansing of the uterine cavity, favours the penetration of the septic germs.

With regard to the local treatment of this affection, the author regards as useless the employment of intra-uterine injections, whether their caustic action be only slight or powerful, unless the affection is of very recent date and only slight in its intensity. Cauterisation of the mucous membrane with solid nitrate of silver is frequently followed by good results, but there is always the chance of parametritis or some other accident following its use. Painting the interior of the uterine cavity with cotton-wool probes soaked in some astringent solution is a serious proceeding, and seems to have

little effect on chronic metritis, especially when polypoid and fungoid vegetations are present. These liquid solutions cannot be applied in a sufficiently concentrated form, and consequently only act superficially. The surgical treatment of endometritis by the curette is next referred to. The opinions of various authors as to the value of this instrument are briefly mentioned ; thus Churchill believes the use of this instrument ought, as a general rule, to be condemned ; Courty is not inclined to adopt it as a means for curing endometritis ; Aran declares its use hazardous ; while Becquerel goes so far as to say it is a barbarous proceeding. On the other hand, Récamier, Robert, Trousseau, Nelaton, and Nonat have all been impressed by the success obtained when using this instrument, defective though it was in many respects. Besides these are numerous other authors who are in favour of curetting.

Another method to which great value is attached in the treatment of endometritis is 'sponging.' The sponge resembles the instrument of the same name used by artillerymen in cleansing their guns. It consists of a handle, a stem, and a head. This last is about eight to ten centimetres in length, and is covered with bristles, which should be of equal length and of uniform resistance. When it is to be used the head is dipped into a medicated solution, passed into the uterus by a spiral movement, and rotated several times while in the cavity. It is then withdrawn by a spiral movement, and if it is thought desirable to apply a second sponging the head of the instrument is washed in a warm sublimated solution, dried, then dipped again into the medicated solution, and the same process is gone through as in the first sponging. In this operation the patient should be anæsthetised, and the calibre of the second sponge should be rather smaller than that of the first, the rest of the operation being similar to that of curetting. The author has had the best results by using as the medicated fluid a solution of creosote in glycerine, the strength varying from one of creosote to three or

five of glycerine, though good results have also been obtained with an ethereal solution of iodoform.

In comparing the relative value of the curette, the sponge, and intra-uterine medications, Dr. Doléris comes to the conclusion that intra-uterine medications, as generally used, have no effect whatever on chronic endometritis, though they may be serviceable in some slight and recent cases of this affection. He has never had any accidents after the use of the curette or the sponge. The temperature has never risen higher than $37^{\circ}5$.

The curette acts more deeply than the sponge, but not so equally on the whole extent of uterine mucous membrane. There are also one or two dangers connected with the use of the curette, as going too deeply into the uterine tissue, or even perforating that organ. The sponge has the advantage of affecting every part of the uterine cavity. It destroys any granulation tissue or hyperplastic outgrowths on the uterine wall, while at the same time it applies some therapeutical agent to the bared surface. In conclusion, the author is of opinion that the sponge will be found of great service in the treatment of the majority of cases of endometritis, whether recent or chronic ; that the curette is of use in very chronic and obstinate fungous varieties ; while caustic injections are not of much service.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Can the Cæsarian Section be safely substituted for Craniotomy in the United States at the present time? By JOSEPH TABER JOHNSON.

It is to Dr. Harris, of Philadelphia, that we owe much of our knowledge of the results of Cæsarian section and are able to compare it with craniotomy. He has collected all the known cases in America and Europe, and has thus made statistics which lead him to regard Cæsarian section as better than craniotomy, as more lives can be saved by this means than by any other.

Dr. Johnson, while regarding Cæsarian section with perhaps more favour than craniotomy, believes that both have their rôle to play in the art of midwifery. Cæsarian section, when possible, should be made the operation of election, craniotomy being an operation of necessity.

Craniotomy even on the live child may become a perfectly justifiable operation under certain circumstances, and ought not to be denounced as 'child murder' or 'an abominable crime.' Any operation giving the mother and child a chance of living ought to be hailed with satisfaction, and if Cæsarian section is the means of thus saving more lives than craniotomy it ought to be adopted. Statistics are apt to be misleading, especially those given by Tyler Smith and Churchill about 1858, and cannot fairly be compared to the statistics of the improved Cæsarian section of 1884-5-6. It is a great mistake to fancy that from certain figures deduced from statistics any hard and fast rule can be laid down and followed by the practitioner, especially when it is remembered that the mother has a right to be consulted, and to refuse, if she pleases, an operation as serious as even the improved Cæsarian section. The author agrees with Lusk, 'that if in any case the decision is left to the physician he should regard the welfare of the mother of paramount importance. . . . The duty of the physician, however, is to his patient. He is not to constitute either judge or executioner.' The recent work of Prof. Parvin is quoted to show that craniotomy must at times be performed, and that the life of the mother ought to be considered. To 'utterly abolish craniotomy,' as recommended by Meadows, would leave us with our hands tied in some cases. 'Cases differ, people differ, obstructions differ, vital force and the disposition of patients so differ that, as conservative physicians, we should act as the requirements of each case are presented to us.' Craniotomy performed earlier and with strict antiseptic precautions will save more *mothers' lives* than Cæsarian section. By the timely performance of the improved Cæsarian section more *lives* would be saved than by craniotomy, and Dr. Johnson would prefer it as being

a more conservative and cleanly operation. The statistics on Cæsarian section collected by Harris are given and commented on with the remark that 'with all the improvements in antiseptic abdominal surgery in the last decade of the nineteenth century, in the United States, nearly 84 per cent. of the women operated on died. So that, in our country, instead of the statistics improving, they have been steadily growing worse and worse.'

The recent brilliant successes in Cæsarian section in Germany cannot fairly be used as an argument for the performance of the operation in America. In the former country the operation is performed earlier and is an operation of election. In America the operation is only performed after prolonged and useless efforts to deliver the patient.

During the last five years there have been nineteen Cæsarian sections performed in America, with the result that only two mothers were saved and five children. This result the author believes is due to two factors: (1) the delay in performing the operation, (2) the attempts made at other methods of delivery before making the section. In Germany, where 87 per cent. of mothers have been saved, the operation is done earlier in labour, before forceps, version, and craniotomy have been resorted to. The following essential rules are laid down for the performance of Cæsarian section: (1) At once carefully determine the degree of obstruction, and operate early in labour; (2) operate with full antiseptic precautions—the spray over the abdomen is unnecessary; (3) control hæmorrhage by compression of the cervix, either manually or with a rubber ring, but preferably manually; (4) carefully approximate the muscular walls and serous surfaces of the peritoneum by deep and superficial sutures: the removal of a section of the muscular wall is unnecessary; (5) protect the peritoneum by contact with fluids and make a careful toilet of that membrane; (6) administer ergotine hypodermically at the beginning of the operation.

The Treatment of Puerperal Convulsions.—In an editorial in the March number of this Journal the various

methods of treatment of puerperal convulsions are noted. Professor Loomis, nearly twenty years ago, advocated the use of morphia, and from a large experience of these cases arrived at the following conclusions: (1) that morphine can be administered hypodermically to some, if not to all, patients with acute uræmia without endangering life; (2) that the almost uniform effect of morphine so administered is, first, to arrest muscular spasm by counteracting the effect of the uræmic poison on the nerve-centres; secondly, to establish profuse diaphoresis; thirdly, to facilitate the action of cathartics and diuretics, especially the diuretic action of digitalis. Dr. Joseph Eggleston has used morphine for many years in these cases after having tried chloral, veratrum viride, &c., in place of venesection. When morphine is used chloroform can be dispensed with altogether, though chloral must be administered, and its effect is very decided when given in doses of 10 grains three times daily. Other obstetricians regard chloroform to be the most satisfactory drug in the treatment of these cases, but instead of completely anæsthetising the patient, as is done in this country, the Americans restrict the chloroform to the pains and to the restlessness which is often the preliminary to a fresh seizure. Professor Lusk recommends first bleeding, then chloroform, afterwards resorting to chloral and bromide of potassium. Clark, on the other hand, uses morphine in large doses, a grain and a half; but we agree with the remark in the editorial that such a dose appears unnecessarily large and dangerous. Parvin recommends morphine in $\frac{1}{4}$ - to $\frac{1}{3}$ -grain doses with atropia. Amyl nitrite has been used with great success, but severe hæmorrhage has resulted in some cases. Pilocarpine has been recommended and tried and highly praised by some authorities, but hitherto its results seem to have been uncertain. Nitro-glycerine has also had a trial, but the long time which elapses before the drug takes effect would seem to eliminate it from among the remedies to be used in this affection where every moment is of importance.

Active cathartics should be given at once, croton-oil and

the compound jalap powder being perhaps the best and speediest; chloroform, if given during the fits and when any signs of muscular irritability appear, may be given for a great length of time, and allows any operation to be performed by preventing muscular movements interfering with the operator. Bromide of potassium and chloral should be administered, not, as recommended by Eggleston, in 10-grain doses, but in doses of from 20 to 30 grains. Diuretics, especially digitalis, throughout the whole period of convulsions will be found extremely serviceable.

Emmet's new Operation for Prolapse of the Posterior Vaginal Wall, or so-called Laceration of the Perinæum. By Dr. BALDY.

We append a description of this operation as given by Dr. Baldy, as it appears most clear and concise:—

‘The only satisfactory surgical procedure suggested as a cure of the injury is that of Dr. Emmet, for “restoration of the pelvic diaphragm.” The patient is placed in the dorsal position, and the labia separated by assistants; hook a tenaculum or a ligature (which remains a permanent landmark to the end of the operation) into the crest of the rectocele and draw it upwards, without undue traction, to the meatus, and place it in the hand of an assistant. Hook another tenaculum into the labial tissue on each side directly opposite to or in the lower caruncle or remains of the hymen. If slight traction in diverging directions be made in all the tenacula at the same time three triangles are formed having the crest of the rectocele for their common apex. The base of the first is a line drawn from caruncle to caruncle, and the bases of the others a line drawn from each caruncle to a point far up the sulcus of the same side. On denuding these surfaces and bringing the three tenacula together, “the vaginal canal will be found reduced in size, the perinæum will have been apparently drawn up toward the arch of the pubes, and the tissues of the previously gaping outlet will have been rolled in until the vaginal entrance is no longer larger than

that of any female who has not given birth to a child at full term." The posterior wall is brought firmly up against the anterior wall and bladder, giving them their natural and necessary support, and preventing their rolling down and out. Care must be taken not to denude too much surface in the sulci, as failure may result, the sutures cutting out from undue traction. The scissors should be used for all plastic work in the vagina. Any one becoming accustomed to their use will never go back to the knife. The bleeding is infinitely less, and much time is saved by the celerity with which they can be handled.

'The most essential part of the operation is the introduction of the sutures. They are passed from the apex of each sulcus toward the operator. A tenaculum is hooked into the apex of one of the sulci and drawn away toward the cervix uteri, thus preserving the line on which the sutures are to be introduced. The sutures are then all passed toward the operator to the bottom and median line of the sulcus, plenty of tissue being included; the sutures emerge at the median line of the sulcus and are reintroduced in the same spots and carried away from the operator, emerging just beyond the freshened edge of the rectocele directly opposite the original point of introduction, on the other side of the sulcus, thus taking a V-shaped course. The number of sutures is usually four or more. The other side is sutured in the same manner. When these sutures are all drawn up into place and closed, there remains a small triangular space of freshened surface in front of the rectocele, which is closed by the so-called crown stitch and one or two superficial external stitches. The crown stitch is introduced through labial tissue at the lower caruncle, the original point of introduction of one of the tenacula, carried across through the crest of the rectocele, and then through labial tissue at the lower caruncle on the opposite side. All the other sutures are now lost to view within the vagina. The resulting shallow line directly in the median line of the perinæum is closed by one or more superficial external stitches.

They are passed deep enough to include a portion of the posterior vaginal wall.'

The after-treatment is simple. Rest in bed, and attention to the bowels, which must be kept open from the first, are the chief points to note. The knees need not be tied together. The stitches are removed on the eighth day.

Hystero-Neurasthenia, or Nervous Exhaustion of Women, treated by the Weir Mitchell method. By Prof. FRANKLIN H. MARTIN.

Under the term 'hystero-neurasthenia' Professor Martin describes a class of patients in whom there is no pathological condition of any one organ found, but who suffer from 'a host of symptoms that can be accounted for in no other manner than by being the result of a partial or general nervous inefficiency or perversion of the nerves controlling the organs peculiar to women.' Nervous inefficiency may be congenital, or due to sexual excess or to a prolific child-bearing season. Nervous perversion may arise from too great or long continued literary exercise, anxiety or worry, excessive physical labour, and sometimes to masturbation. The symptoms are extremely numerous and varied, and each case will have its own peculiarities. Some of the more common and important, however, are anæmia, with frequently amenorrhœa and sterility, backache, leucorrhœa, dysmenorrhœa, neuralgic pains in different parts of the pelvis. They are easily fatigued, and experience lumbar pains on taking exercise or standing. Physical examination is rather unsatisfactory, as there is nothing very definite to be found. The vagina and vulva appear to lack proper tone. The cervix is pale in colour, and almost invariably has a slight milky white mucous discharge exuding from it. The uterus is normal in position, movable, but extremely sensitive to the touch. There is tenderness in one or both ovarian regions, and on deep pressure the ovaries will generally be found to be prolapsed and slightly enlarged. The rectum is generally in a relaxed condition. The urine is pale, and contains, as a rule, phosphates and mucus. The

action of the heart is weak and the capillary circulation slow. The digestion is fair ; attacks of nausea, without any obvious cause, come on suddenly and disappear as suddenly. These attacks are frequently accompanied by headache and spinal tenderness. Sleeplessness at night-time is a common symptom. The treatment, to be successful, must include (1) rest, (2) proper feeding, (3) seclusion, (4) sleep. To insure the proper administration of these four requisites without overdoing any of them is frequently a matter requiring much skill, patience, and ingenuity ; but the result, which is sure to be successful when treatment has been properly undertaken, is worth all the patience bestowed on the case. The author goes fully into a case, with the treatment adopted ; but, as it is identical with the treatment so successfully employed by Weir Mitchell in America and Playfair in this country, we will refrain from quoting it.

GYNÆCOLOGICAL SOCIETY OF BOSTON.

Dr. E. C. Keller exhibited a cyst of the broad ligament removed from a patient 65 years of age. Seventeen pounds of fluid were evacuated.

Dr. Keller also exhibited a sub-peritoneal fibroid from the fundus uteri. The patient was 38 years of age, unmarried. Catamenia regular. The tumour was diagnosed as an ovarian tumour on abdominal section performed. The pedicle was cut through by the thermo-cautery and then securely tied. Patient died on the seventh day after the operation. The autopsy showed that five ounces of blood had oozed into the peritoneal cavity and set up a peritonitis.

Dr. H. O. Marcy showed a dermoid cyst with a bony wall. The lower portion of the sac contained a plate of real bone with a spine projecting into the cyst. By the vagina the hard bony mass could be felt, and this led to the diagnosis of fibroid tumour.

Dr. Thornton Parker read a paper on ' The Removal of a large Vaginal Tumour.'

The patient was 35 years of age. Had one child. - Four years previously began to suffer from menorrhagia. On vaginal examination there was a pear-shaped mass with its base upwards filling that canal. The uterus could not be felt above the pubes, and at first it was thought the case was one of uterine inversion. In the pelvis was a mass on the right side which moved with the tumour. Fibroid tumour occupying the vagina was now diagnosed, and the tumour removed by the chain écraseur. The tumour was too large to be removed by the vagina, though straight-hooked forceps were used. The arm was passed into the rectum, and pressure exercised on the tumour at the same time that forceps and vectis were used ; by this means the tumour was delivered. The tumour weighed $1\frac{1}{2}$ lbs. Its longitudinal circumference was 15 inches ; its lateral circumference at its point of attachment was 12 inches.

DISCUSSION.

Dr. S. Brown described a case which occurred in his practice with many points of similarity to that mentioned by Dr. Parker. He thought the tumour might easily have been removed piecemeal.

Dr. Cushing did not see why the écraseur was used in Dr. Parker's case. The mucous membrane might have been cut, and the tumour removed piecemeal. The introduction of the arm into the rectum was bad practice.

Dr. Keller had removed similar tumours by means of a vulsellum forceps.

Dr. Marcy would have removed the tumour by splitting it in pieces. He had introduced the arm into the rectum without doing injury.

Ovarian Tumour attached to a Lumbar Vertebra.—Dr. E. C. Keller showed an ovarian tumour with the following history ; the patient was 19 years of age, and was supposed to be pregnant, though she positively denied such a possibility. Examination of abdomen showed that there was a solid tumour in the abdomen with some ascites. The abdomen

was aspirated and four quarts of fluid removed. Peritonitis followed. Three weeks later abdominal section was performed, when it was discovered that a solid ovarian tumour existed and was adherent to the fourth lumbar vertebra. The tumour originated in the left ovary, but was attached to the right side of the lumbar vertebra. The uterus was bifid. The patient had never menstruated.

Treatment of Fibroid Tumours of the Uterus by Electrolysis, with a Description of Apostoli's Method. By FRANKLIN H. MARTIN, M.D.

The author defines electrolysis as an expression for an electrical phenomenon, and in order to obtain this phenomenon certain conditions are necessary: (1) a continuous current of electricity; (2) an electrolyte; (3) a means of conveying the current through the electrolyte.

The current should be a continuous galvanic one, of moderate quantity compared to the intensity, and its direction should always be known.

For the measurement of the current a galvanometer should always be employed, so that any variations in intensity can be watched and noted. This is particularly necessary when a current of more than 25 milliampère strength is employed. The instrument used by the author is one made by the McIntosh Galvano-Faradic Company of Chicago, which will measure accurately a current from 1 to 1,000 milliampères.

Two electrodes are always necessary, one positive, the other negative. When the fibroid tumour is the cause of much hæmorrhage—the hæmorrhagic variety—the positive pole should be introduced into the uterus, so that the mucous membrane of the uterus and the tissues beneath may undergo a process of coagulation and hardening. 'This process of contraction and coagulation modifies the calibre of the vessels of the circulation, so that hæmorrhages are less liable to occur at the point of application.' When on the contrary a process of liquefaction is required the negative pole introduced into

the uterus will bring about the desired effect. The internal electrode consists of a sound which fits accurately the uterine cavity and is insulated throughout its vaginal portion, or of a needle which is inserted into a presenting part of the tumour. Instead of the external electrode used by Apostoli the author uses 'a concave disc of soft metal of appropriate dimensions, which has loosely stretched over its concavity an animal membrane, which is fastened to its circumference securely enough to render it water-tight. Between the concavity of the disc and the membrane is left a space one and a half inch in thickness, which is filled with a warm saturated solution of chloride of sodium. The electrode is filled through a stopper on the surface of the metal. The connections are also made from this surface.'

This electrode is applied over the abdomen, and will be found to adapt itself to any irregularities on the surface of the body.

Before applying the current be careful there is no acute metritis, or peri- or para-metritis present. If these are absent, place the patient in the dorsal position, and determine accurately the direction, size, and depth of the uterine canal by means of a sound; then select a uterine sound electrode, corresponding as nearly as possible with the size of the uterine canal.

This is passed into the uterus up to the fundus, and the insulating shield is pushed up to the cervix, so that the vagina is guarded from all injury. The large external electrode is then prepared and placed on the patient's abdomen, and both electrodes connected with the poles of the battery. The current should then be passed, beginning very gradually at first, and if any pain be experienced by the patient the operation should be stopped for a few seconds. At the first operation, which ought not to exceed five minutes, a current of not more than 50 milliampères should be passed, and if the patient bear this well it may be increased at future operations to 100 milliampères, or even to 1,000 milliampères, while the duration of the operation may be prolonged to ten

or twelve minutes. Towards the end of an operation the current strength should be gradually diminished, and the patient be instructed to rest for half an hour before proceeding home, where she should rest for another twenty-four hours.

The operation has two effects, it checks hæmorrhage and reduces the size of the tumour, though nothing but repeated applications can effect a cure. In conclusion : ‘(1) A means of generating a continuous current of electricity is necessary in order to obtain all the benefits of this treatment. (2) Hæmorrhages from hæmorrhagic tumours can be cured by the local coagulating effect of the positive pole applied inter-uterine. (3) The inter-uterine electrode, when positive, should be of unattackable metal, conforming as nearly as possible to the size and shape of the uterine canal, and having the vaginal portion insulated. (4) When the cervical canal cannot be entered a negative galvano-puncture should be made into the presenting part of the obstructing mass of the tumour, and an artificial canal, which is to take the place of the impenetrable uterine canal, in all subsequent treatments be formed. (5) The intra-uterine electrode should in all cases be negative, unless there is hæmorrhage or excessive leucorrhœa, when the positive pole is always required. (6) The strength of the current should be the strongest possible consistent with the desired therapeutic effect and the endurance of the patient. (7) Cases of intolerance of high doses arrange themselves under the three following heads : (i.) hysteria ; (ii.) enteritis ; (iii.) acute nephritis, peri- or para-metritis, the most tolerant being the deep uterine and profusely hæmorrhagic. (8) The duration of the operation should be from eight to ten minutes, according to the toleration of the patient. (9) The number of operations is necessarily dependent upon and influenced by the result to be accomplished. A severe hæmorrhage can be checked in from four to five séances, while a general reduction of the tumour necessitates many operations, varied, of course, according to size and location. In many cases simply a restoration to health and a relief from the prominent and annoying symptoms must be accepted as a substitute for an

actual cure. (10) The time of commencing the treatment matters but little if the tumour is not rapidly growing and no excessive hæmorrhage is present. The operation should be inter-menstrual if possible, but if hæmorrhage is continuous operate during the flow. The séances should occur two or three times a week, if compatible with the endurance of the patient, and should be as regular as possible. (11) Extra-uterine puncture should be regarded only as a last resort, but every means of reaching the tumour through the uterus being impracticable, seek if possible to make the operation extra-peritoneal: should this in turn prove equally unadvisable, use as a final alternative the abdominal puncture. (12) Strictest cleanliness and thorough antiseptic precautions are absolutely demanded in operations connected with this treatment.'

NEW INVENTIONS.

BRIN'S OXYGEN COMPANY have succeeded in preparing a pure water charged under high pressure with chemically pure oxygen. The water acts as a local stimulant and tonic. In cases of dyspepsia it affords much relief. As a table drink it is palatable and digestive. It will be found valuable in cases of gout and diabetes. As far as we have tried the oxygen water the results have been most encouraging.



DR. ALFRED MEADOWS, F.R.C.P..

FIRST PRESIDENT OF THE BRITISH GYNÆCOLOGICAL SOCIETY.

IN MEMORIAM.

ALFRED MEADOWS, M.D. LOND., F.R.C.P. LOND., J.P.

No words at our command could convey an adequate expression of the heartfelt regret which must have overcome the Fellows of the British Gynæcological Society when they learned the sad news of the death of their first President.

The name of Alfred Meadows had long since been familiar to every obstetrician and gynæcologist throughout the world: no one, therefore, could have been surprised that when the British Gynæcological Society was founded he should have been chosen as its first President.

Having been one of the earliest Fellows of the Obstetrical Society of London, and having worked for it as one of its earliest secretaries at a time when it was ill-considered and struggling almost for existence, it might naturally have been expected that, in due course, he who had rendered such signal service to that Society would have received at their hands the reward which he had every right to expect from them—the office of President. This debt was not paid.

He died on Tuesday morning, April 19, after a short illness, at his house in George Street, Hanover Square. He was born at Ipswich in 1832, so that he was still in the prime of life at the time of his death. On his first entering the medical profession he was apprenticed to Mr. Elliston of Ipswich, and subsequently matriculated at London University in 1853, choosing King's College as his medical school. He obtained the membership of the College of Surgeons in 1856, the degree of Bachelor of Medicine in 1857, and the Doctorate in 1858 of the University of London.

It will be within the memory of those who watched the growth of the Obstetrical Society that he was at one time an active Fellow of that Society and took great interest in all its proceedings. As Secretary to Dr. Robert Barnes, the President, his services were invaluable and were gratefully acknowledged. He was the Editor of the Catalogue and Report of Obstetrical and other Instruments exhibited at the *Conversazione* of the Obstetrical Society in 1886, and, together with Dr. Braxton Hicks, undertook the arranging of the exhibition of instruments.

On the foundation of this Society, in 1884, he was elected President, a post which was filled by him with great distinction and ability.

In 1886 he was elected President of the Obstetrical Section at the Annual Meeting of the British Medical Association held at Brighton, and his ability and courtesy and the able manner in which he discharged his duties were freely commented on. As an author he was also successful, as the many editions of his 'Manual of Midwifery' attest. For years this work was the favourite text-book among medical students and practitioners in this country. 'The Prescribers' Pharmacopœia' was also very favourably received by the profession and went through many editions. Bernutz and Gonpil's work, 'Clinical Memoirs on the Diseases of Women,' was translated by him into English for the New Sydenham Society, and was one of the most useful literary tasks he undertook, rendering available as it did to a large number of men one of the most valuable French works on inflammatory conditions of the pelvic peritoneum and cellular tissue in the female. Dr. Tanner's work on 'Diseases of Children' is also an example of some of Dr. Meadows's literary power, as he had a share in its production.

He was actively engaged in his medical work up till Sunday evening, April 17, and shortly before his death exhibited at the British Gynæcological Society a specimen of fibro-myoma of the uterus which he had successfully removed at St. Mary's Hospital.

He was a Commander of the Order of Wasa, Sweden.

As an evidence of the esteem in which he was held in the county of Buckinghamshire, we may mention that he had held for many years the honourable position of one of Her Majesty's Justices of the Peace.

He took an active interest in the various associations in the county of Buckinghamshire, and was a prominent member of the Volunteer Fire Brigade at Colnbrooke, where he enjoyed the luxury of a country mansion. In Freemasonry he was extremely interested, and took an active part in the foundation of the University of London Lodge.

He was interested in and helped to found the Mont Dore Institution at Bournemouth, an establishment which, however, has not been quite as successful as was anticipated.

On Sunday evening, April 17, while attending Divine Service at All Saints', Margaret Street, he was seized with colicky pains in the abdomen, which gradually became so severe that Sir Edward Sieveking was called in on Monday morning. Later on the same day Sir

William Jenner saw him in consultation with Sir Edward Sieveking ; but his strength rapidly gave way, and he died in the greatest agony at 6.30 on Tuesday morning. He leaves behind him a widow and one daughter.

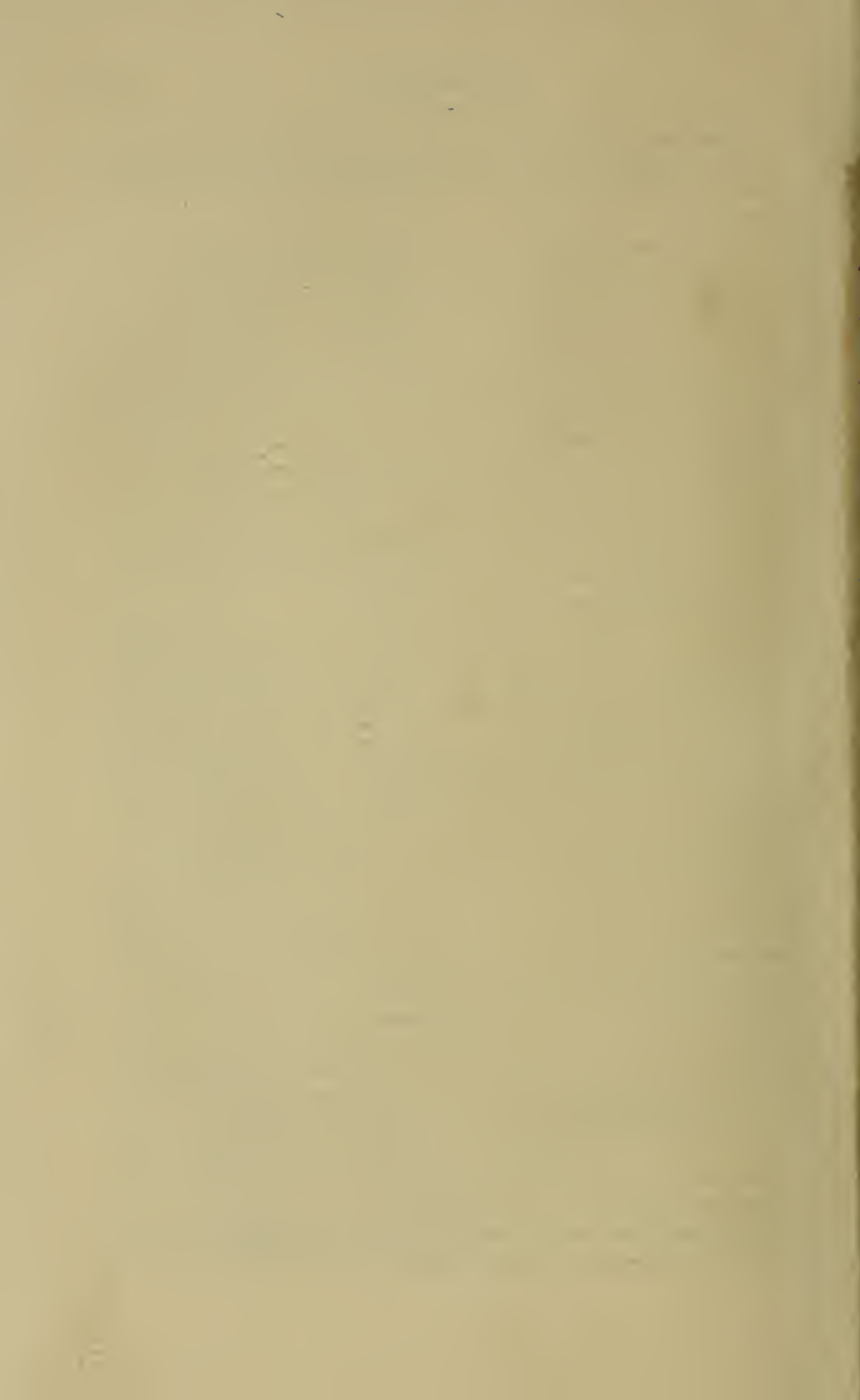
The following account of his funeral is kindly supplied to us by one of the Fellows of this Society who was present :—

Within less than a week from the time Dr. Meadows performed the duties of churchwarden at his adopted church of All Saints', Margaret Street, his remains were carried in and deposited in the aisle of the church, whilst the funeral service, with all the pomp and circumstance the occasion suggested, was performed. Numbers of his professional brethren, and a not innumerable contingent of patients and nurses who had known and respected him during life, assisted at the solemn rite. Wreaths and crosses of flowers almost hid from sight the coffin. The service, though solemn, was more a jubilant pæan of praise than a sad funereal service—the plaintive *Miserere* giving place to the triumphal strains of the organ, which at times seemed loud enough to wake the dead.

In the afternoon of the same day the remains were conveyed by special train to Colnbrooke, some sixteen miles from town, on the Great Western Railway line, where Dr. Meadows had a country seat. A large number of his professional friends were present, including Sir E. H. Sieveking, Drs. Broadbent and Cheadle, Messrs. Norton, Owen, and Field, and, in fact, most of the staff of St. Mary's Hospital, Drs. Bantock, Edis, and Grigg, who represented the British Gynæcological Society, and a large number of Masonic brethren, delegates from the lodges to which Dr. Meadows had belonged.

As the train drew up at the station, the platform was lined from one end to the other with members of the fire brigades from all the adjacent towns, together with numerous residents from the neighbourhood, in which Dr. Meadows was well known, having been a Justice of the Peace and a liberal contributor to local interests.

The scene at the small country church, in the welfare of which the deceased had taken much interest, must have been eminently gratifying to the surviving friends, as evidencing the esteem in which Dr. Meadows had been held. The altar rails and coffin were simply covered with wreaths and crosses made of the choicest flowers. The service, full choral, was most impressive, many being evidently deeply affected ; and when the coffin was lowered to its last resting-place at the eastern end of the church, few of those present but regretted that this was the last mark of respect they could show to one who had been so recently a friend and fellow-labourer.



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THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, MAY 25, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT: 25 Fellows, 3 Visitors.

The following were elected Fellows of the Society:—
Dr. M. A. Mendes de Leon; Dr. Robert Bruce.

The following were proposed for election:—Dr. N. White-law Bourns, London; Dr. B. Gray Heald, Leeds; Dr. E. F. Underwood, Bombay.

Dr. HEYWOOD SMITH exhibited Dr. Hofman's 'Perfected anatomical pelvic pessary.' He had not yet had an opportunity of trying it, but it seemed to him that the concave sides would probably, as its inventor claimed, tend to prevent its shifting from its position so much as pessaries with convex sides are apt to do in the vagina. He also exhibited a pessary with a cup-shaped diaphragm (also Dr. Hofman's), which was intended to facilitate the application of remedial agents to the cervix uteri. It was also recommended by the inventor as likely to favour conception if introduced after

coitus, but he (Dr. H. Smith) deprecated its introduction to the public, as being more likely to be abused for the purpose of preventing conception.

Dr. ROUTH thought, apart from the difficulty of their introduction, there were three objections to their use. One was the material. Nothing but the pure indiarubber was durable. The vulcanised indiarubber of which these were made perished very quickly. Secondly, unless the strictest washings of the vagina by injections were carried out, vulcanised pessaries gave rise to most offensive vaginal discharges. Lastly, though offered with a view of assisting fecundation, one variety which had now been presented to the Society, with a diaphragm, would be surely used in the same way as French letters by loose characters to *prevent* impregnation, precisely as had been done with Dr. Greenhalgh's intra-uterine vulcanised stems.

Dr. EDIS said he had had no opportunity of trying the pessary shown, nor did he think it at all likely that he should ever employ it, judging from what he saw of it.

Dr. HEYWOOD SMITH also said that he had the melancholy satisfaction of exhibiting the new *serre-nœud* that had been made by Mayer and Meltzer, at the suggestion of the late Dr. Meadows, and referred to by him at the last meeting of the Society at which he was present. Its principal features were that it was small and would lie flat on the abdomen that the wire was easily fixed on to a revolving drum, and, on the turning of a key, the wire could be tightened up to any degree without any cutting motion, as both ends of the wire were wound up simultaneously.

The PRESIDENT remarked that great ingenuity had been evidently exercised in the construction of the instrument, but this was its smallest recommendation, for he doubted whether such an instrument would bear cleaning after being on a pedicle for ten or fourteen days. Nor did he think the power of taking in the slack, as it was called, was any recommendation, for, as his experience extended, so he more and more recognised the necessity of preparing the pedicle, so as to reduce it to

the smallest possible dimensions. This he had been obliged to do in the case he was about to exhibit.

The PRESIDENT exhibited two small dermoid tumours of the ovaries, which he had removed on the 20th from a single lady, aged 26, with the view of enforcing the proposition he had laid down in his work on 'Early Ovariectomy,' viz. that we should operate as soon as we could be sure of our diagnosis. The patient had been under his care, on and off, for over two years, for menorrhagia and uterine catarrh. She had been repeatedly examined, but nothing abnormal was detected till the end of February last, when he first discovered an enlargement of the right ovary. He gave her three months' grace, but the patient returned within two months, complaining of pain and symptoms of nervous irritability, and, as the ovary had evidently somewhat increased, he determined to operate. On the left side there was a suspicion of tubal disease from the thickening of the parts. On opening the abdomen, the omentum was adherent at the brim of the pelvis in front, but he succeeded in getting through an opening left in the adhesions, and found the right ovary about the size of a duck's egg, very adherent to the broad ligament and the tube. In bringing it out the cyst ruptured, and gave exit to a thick, greasy fluid resembling the usual contents of dermoid cysts. The left ovary was found in a pocket formed by the adherent tube, and was also removed with its tube after breaking down the adhesions, and in bringing it out it also burst, the contents being very thick. The pelvis being full of a mixture of dermoid contents of burst cyst and blood, it was very freely washed out with several pints of warm water, by means of a Higginson's syringe, until all trace of dermoid matter had disappeared. A drainage-tube was left in, and he was happy to add that the patient was making a most satisfactory convalescence, the temperature never having exceeded 99·2. The tube was removed a few hours ago, while both pulse and temperature were normal.

Had these tumours been left until they had got to the size

of one or two pounds, there can be no doubt that the operation would have been much more difficult and serious than it was, and he thought the case furnished very strong evidence in support of his proposition.

2. He also exhibited two large fibroids, along with the enlarged uterus, from a case of supra-vaginal hysterectomy performed on a single woman aged 38, on the 16th. There were two large pediculated tumours, as well as the uterine body enlarged and deformed by the presence of a colony of small fibroids. Each of the tumours weighed about 7 lbs. One of these lay in the right superior part of the abdomen, passing up under the false ribs, and was very mobile; the other occupied the left lower part of the cavity. The upper one was connected to the lower by a very thick fleshy pedicle near its attachment to the fundus uteri. To secure a pedicle the lower one had to be enucleated. The right ovary was easily secured in the loop of the *serre-nœud*, but the left was so low down, and so intimately connected with the sigmoid flexure, that only a small portion of the uterine end could be included. Even then the sigmoid flexure was so drawn up, though several bands had been ligatured and divided, that when the wound was closed it was close up against the parietes, and there seemed to be great danger of obstruction of the bowel. He was, however, happy to be able to add that the convalescence had been quite uninterrupted, for the temperature had not exceeded 99·6, and the bowels gave no trouble. But he had taken the precaution of administering a mild aperient as early as the fourth day.

Mr. BLAND SUTTON read the following

Report on Dr. Bantock's Specimen of Solid Ovarian Tumour.

The tumour is oval in shape, and measures, in length, 9 inches; in width, $6\frac{1}{2}$ inches; and is $5\frac{1}{2}$ inches in thickness.

The peripheral portion of the tumour is hard and tough, like a uterine myoma, but the central portion is softer, and in one or two spots exhibits signs of softening. These two

regions of the tumour differ histologically. The peripheral parts present bands of wavy fibrous tissue, interspersed with a mixture of round and spindle cells. The central, softer portions are mainly cellular, but show commencing myxomatous changes.

The tumour is essentially a *mixed celled sarcoma*.

Dr. BARNES stated that recently making a dissection at the College of Surgeons, with a view to determine a question relating to the statics of the uterus, he found the pelvis occupied by the cæcum, loaded with scybala. The cæcum was very large, low in the pelvis in Douglas's pouch; it felt nodulated. The uterus was adherent to it. There was no history of the case; the subject came from a lunatic asylum. Dr. Barnes asked permission of the President to mention the case, with a view to learning if any Fellow had known a similar thing. The interesting point was clearly the difficulty of diagnosis from other bodies that might be found in the pelvis during life.

Dr. BEDFORD FENWICK said: The case which has just been so clearly narrated by Dr. Barnes is undoubtedly extremely interesting as a pathological curiosity, and as an example of a clinical possibility, but I venture to believe that beyond these lines it is not one of much practical importance. For I would point out that in order that such a condition should occur, first there must be an unusual degree of mobility of displacement of the cæcum, and secondly that the large intestine must be overloaded with fæces to a most extraordinary extent. Then it is important to notice that this condition was found in the cadaver, and evidently had attracted no attention nor caused any special symptoms during life. Had an ante-mortem vaginal examination been made, the loaded rectum would have been, I presume, at once discovered, and an aperient and enemata would not only have cleared the lower end of the large intestine, but have stimulated the cæcum to expel its contents also, when, of course, the obscurity of the nature of the pelvic mass would likewise have disappeared.

Finally, I would call attention to a fact which is strongly laid down by all alienist writers—the peculiar torpidity of the intestinal canal in the insane, which causes enormous accumulations of fæces and great difficulty in their excretion. Whether this be due to the central nerve disturbance, or to the mental carelessness as to the body's condition, it is unnecessary to discuss here. I would only mention it as a very practical and important point to be remembered, that whenever the mind is unhinged the bowels cease to open normally, if I may so put it. But it explains, I think, first, why this insane patient presented this abnormal condition, and, secondly, why it is not likely to be met with frequently, except in cases of insanity and intestinal obstruction; and therefore, as I have said, why the case appears to me not to present any very great difficulties as to diagnosis or treatment.

The adjourned discussion on Dr. Routh's paper 'On the various modes of treatment of the worst cases of uterine flexions' was then resumed.

Dr. MANSELL-MOULLIN said that the scope of Dr. Routh's paper was so wide, and embraced such a multitude of topics, that it was quite impossible to say in what direction the discussion might tend.

Dr. Routh had, in the earlier part of his paper, spoken much on the subject of fundal endometritis, and had given certain definite directions for its treatment. Dr. Moullin regretted to find that this term, 'fundal endometritis,' was getting so extensively into use.

There was no difficulty in supposing that the lining membrane of the fundus, in common with the endometrium elsewhere, might share in a general inflammation, such, for example, as a gonorrhœal infection extending upwards from the vagina. In the case, too, of pelvic peritonitis, involving, perhaps, tubes and ovaries, and cellular tissue, no doubt the fundus, with its lining membrane, was more or less involved at the same time. But it was quite impossible to conceive

fundal endometritis as a limited local lesion to be relieved by any special treatment.

What was fundal endometritis, and what the symptoms? The answer would probably be that the condition depended upon an increased supply of blood to the part; that the fundus was enlarged, and the mucous membrane, if it could be seen, probably reddened and turgid; and a marked symptom was that the uterine sound gave intense pain as soon as it came in contact with it.

Without questioning the reality of fundal endometritis, this symptom was insufficient for its diagnosis. The sound often gave rise to more or less pain when it came in contact with the fundus, and in some instances the pain was very great, even in a uterus about the normal healthy condition of which there could be no doubt.

Again, recent investigations into the circulation of the uterus went to prove that the blood supply of the fundus did not return through the cervix, but escaped laterally; consequently, that a flexion *per se*, however acute it might be, could have no influence in causing congestion.

The introduction of such terms as 'fundal endometritis' only served to increase difficulties, and draw away the attention from what was of importance to matters comparatively trivial. Like 'parametritis' and 'perimetritis,' and a host of such terms, it would be better if 'fundal endometritis' were excluded from gynæcology altogether.

It was not analogous to cervical endometritis, which was a definite glandular catarrhal affection.

There was a certain class of case, which might well be considered among the worst forms of flexions, for which abdominal surgery would probably, in the future, be more readily resorted to. Such was the following, which had recently been under his care. The patient was aged 32 years, had had three or four children, the youngest of which was 7 years old. At the last confinement she had been obliged to get about too soon to nurse her husband. She attributed her illness to that cause, and had ever since suffered more or less

pelvic pain and intense dyspareunia. She had been under constant medical treatment, and pessaries of every description had been employed, but she could not endure the pain they caused. Vaginal examination showed the uterus was retroflexed. It could be replaced by means of the uterine sound, but at once returned to its former position on withdrawal. An ovary was prolapsed, adherent, and very tender on pressure. For cases like this there was but one remedy. Remove the ovary, the seat of active pain, and the patient's condition would be rendered tolerable. A well-fitting Hodge pessary might possibly be required subsequently to complete the cure.

Dr. HEYWOOD SMITH said that Dr. Routh, in his able paper, had specially referred to difficult cases of flexion, and had kept to the consideration of such cases more than those speakers who had already joined in the discussion. As to Dr. Edis's remarks as to the large size of one of Dr. Routh's pessaries exhibited, he would say that cases were occasionally met with that required pessaries even larger than the one exhibited, and in his case referred to by Dr. Routh he was obliged to use a pessary much larger than that. In the consideration of cases of difficult flexion of the uterus, it should be borne in mind that, as a rule, though of course there were exceptions, cases of ante flexion were more or less congenital, and so the uterus retained its firm consistency; and in these cases, of course, it was more difficult to keep the uterus straight—in fact, in the majority of cases, no extra-uterine pessary would avail for the purpose, and the only chance of effecting a cure was by the use of an intra-uterine stem. In cases of retroflexion, on the other hand, there was, as a rule, subinvolution, chronic endometritis, or cervicitis—in fact, some morbid condition that rendered the uterus more easily bent; or, if not that, the very means used to remedy the disease rendered the uterine flexion more amenable to treatment, and therefore the intra-uterine stem was not so frequently needed as in cases of ante flexion. He quite agreed with Dr. Routh that a careful course of preparation should

precede the introduction of a stem, and the plan of introducing a stem into the uterus at the patient's visit was wholly to be deprecated. The same observation would apply to the great majority of uterine diseases. For their proper treatment and successful cure it was, as a rule, necessary that the patients should lie up for some time. He had recently been called in consultation to two cases of retroflexion of the gravid uterus, where, the condition of flexion having been overlooked, the enlarged body had become jammed in the pelvis. The teachers in our schools of midwifery should strongly impress on the students the duty of examining in all cases where the symptoms plainly pointed to uterine mischief. The neglect of this rule often led to great disasters, and in cases to fatal results. It is as wrong to neglect to examine the uterus when symptoms point to its being the seat of disease as it would be to omit the examination of the chest in a case of dyspnoea or cough.

Dr. EDIS stated that his reason for moving the adjournment of the discussion was more that he might have an opportunity of dissenting from the views expressed than with any intention of bringing forward any novel suggestions. Dr. Edis doubted much whether Dr. Routh's statement as to the normal position of the uterus being in a direction slightly backwards and downwards could be received as correct. It certainly did not correspond with the teaching of Hart and Barbour and other modern authors.

As to the invariable concomitant condition of painful flexions spoken of by Dr. Routh—viz. congestion of the uterus—Dr. Edis quite agreed with him. In fact, the *condition* of the organ was far more important than the *position*, and we often found that no symptoms were present in cases of marked flexion, unless some congestion or inflammation arose. The mere flexion of the uterus did not necessarily produce congestion, and a recent paper on the circulation of the uterus showed that the supply to the fundus was separate and distinct from that to the cervix. We lived in an age of progress. The 'ulcerations' of a bygone age had given

place to 'flexions' and 'misplacements,' and these, in the light of a more scientific and rational pathology, were rapidly being differentiated into 'congenital deformities of the uterus,' and 'diseases of the ovaries and Fallopian tubes.' Although, in Dr. Routh's hands, the combination of intra-uterine stems and Hodge or buckle pessaries might be safe, and even successful, Dr. Edis doubted whether the general use of such instruments by ordinary practitioners would not prove highly dangerous, and he felt justified in uttering a note of warning, lest those who had few opportunities of studying these difficult cases should be tempted to insert these stems without taking the precautions to prevent their setting up mischief, as adopted by Dr. Routh.

Dr. Edis had yet to see a case of flexion where he would insert an intra-uterine stem as large as a little finger, such as the one shown now.

Dr. Routh, in his paper, states that 'an intra-uterine stem often provokes a considerable flow of blood from the uterus, and so relieves congestion.' That might be true, but it was risky practice. It was far better to relieve the congestion by ordinary measures of depletion—glycerine tampons, hot douche, &c.—before resorting to such mechanical devices, which often set up in addition severe inflammation, which took weeks or even months to subside. The modern operations of shortening the round ligaments, fixing the ovaries to the pelvic brim, breaking down adhesions by abdominal section, removing chronically inflamed and painful ovaries, and other similar procedures lessened materially the field of intra-uterine stems. Dr. Edis quite agreed with Dr. Meadows's opinion that 'careful medical treatment was too much neglected nowadays, and the more heroic and startling abdominal operations often prematurely undertaken.' Still Dr. Edis thought that the converse of this was equally true, and uterine tinkering was not infrequently persisted in for many consecutive months, and even years, when a more rational plan of treatment by operation was clearly necessary.

With all deference to Dr. Routh, the cases where the

employment of intra-uterine stems was indicated were daily becoming fewer and farther between. Improved methods of operation, greater skill in diagnosis, and a more extended knowledge of the subject tended to limit materially the number of so-called intractable flexions, and enabled us to deal successfully with many of these distressing cases.

It was comparatively seldom that we had uncomplicated cases of flexion to deal with. There would generally be found to be some prolapse of the ovaries, with possibly some well-marked enlargement, as well as adhesions, and although a well-fitting pessary might obviate any co-existing prolapse of the uterus, still mere elevation of this was not sufficient to overcome the difficulty. Only a few days since he had removed the ovaries and tubes in a patient who for the last two years had been treated by every known form of pessary, for a well-marked retroflexion. The left ovary was prolapsed, and bound down so firmly by adhesions that its removal was attended by much difficulty, and had prevented any form of pessary being tolerated. In such cases as these, mere attention to the flexion was quite inadequate. Their lives were a misery to them, and any operative measures which held out a fair prospect of relief were quite justifiable.

Dr. Edis had no wish to reflect upon Dr. Routh's method of treatment. Great credit was due to him for his ingenious devices for the relief of these distressing cases. Still the fact remained that the risks incurred from wearing an intra-uterine stem for at least a year, as suggested by Dr. Routh, were often greater, and the result in the end far less satisfactory to all concerned, than the resort to operative measures as above indicated.

Dr. ROUTH said in reply, in answer to the criticisms on his paper, that although Dr. Edis had passed a few complimentary remarks, Dr. Routh was pained to find he had so misconstrued his meaning. The large buckle pessary Dr. Edis had condemned had been used in a very difficult case, where a lady with severe head-symptoms, sickness, constant menorrhagia, great pain and difficulty in walking, and great

back-ache, was suffering from complete retroflexion of a very large uninvoluted uterus, about as large as a uterus with a three months foetus would be. The use of the buckle pessary had completely cured her. Surely Dr. Edis would not deny that vaginas and uterine canals varied in size and breadth. So must the buckle pessary and stem. A woman must needs be measured for one of these as she would for a truss or a bandage. Too small a one would be forced out. A properly adapted buckle pessary would remain *in situ* and give every comfort. Dr. Routh had never said that with double prolapsed ovaries his buckle pessary could cure. There Imlach's operation of suspending them would be the best treatment. In cases where only one ovary was prolapsed, he had shown that a specially devised buckle pessary did cure some cases. He had never stated that the position of the uterus was always downwards and forwards. The presence of scybalæ, version, prolapse, or other pelvic diseases, would modify it.

Dr. Mansell-Moullin had stated that endometritis could not be restricted to the fundus only, as, if it proceeded from gonorrhœa or vaginitis, it must have travelled upwards. Dr. Routh did not deny this, but if it reached the fundus it was much more dangerous, as it might extend to the tubes, and produce peritonitis, pyosalpingitis, and death. Again, the very extension upwards would produce tumefaction and obstruction at the internal os, which, if the secretion in the fundus continued, would ultimately facilitate the passage of contents through the tubes. The intra-uterine stem precluded this by keeping the cervical canal clear, and so allowed free escape of contents. Moreover, owing to the nervous connection of the fundus having more extensive relations than that of cervix or body, the constitutional disturbance was always greater. He could not concur with Dr. Mansell-Moullin that if a sound gave pain on touching the fundus uteri, the fundus might be healthy. His experience led him to believe it always was due to some congestive or inflammatory disease there, in a few rarer cases to neuralgia; but neither of these conditions were evidences of health. Dr. Routh thanked Dr.

Heywood Smith for his support and the complete manner in which he had answered Dr. Edis's criticisms. He quite believed that while anteflexions were often congenital, retroflexions were mostly acquired.

Dr. Grigg had dwelt much upon the differences between version and flexion, but after all, unless versions or flexions were accompanied with inflammatory or congestive symptoms, they needed no treatment, and complications might make a version even more painful than a flexion; and any version might under unfavourable circumstances become a flexion. This was the reason he had included all cases under the generic one of flexions. He was glad to find that Dr. Grigg concurred with him in pointing out the impossibility of curing endometritis from gonorrhœa or vaginitis, in cases of flexions, without the use of an intra-uterine stem. He (Dr. Routh) believed this was because of the free exit allowed to uterine, especially the fundal, contents per vaginam. But he (Dr. Routh) also could not for one moment admit that jerks, falls, or great exertions were not often the exciting causes of a flexion in a uterus previously known to be straight, and gave three cases in point, where he knew, from previous examination, the condition of the uterus both before the accident and afterwards.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, JUNE 8, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT: 31 Fellows, 5 Visitors.

The following were elected Fellows of the Society:—Dr. N. Whitelaw Bourns, Dr. B. Gray Heald, Dr. E. F. Underwood.

The following were proposed for election:—Dr. George Wright Hutchison, Chipping Norton; Dr. W. H. Humiston, Cleveland, Ohio, U.S.A.; Dr. Benjamin Duke, London; Dr. E. Crouzat, Paris.

The PRESIDENT then read the following letter of condolence addressed by him, on behalf of the Society, to Mrs. Alfred Meadows on the death of her husband, and her reply thereto:—

12, Granville Place, Portman Square: April 29, 1887.

DEAR MADAM,—At the meeting of the British Gynæcological Society held on the 29th inst., it was my melancholy duty, as its President, to call the attention of the Society to the very great loss which the Society had sustained in the sudden and unexpected death of its first President, your distinguished husband. I had also the melancholy satisfaction of proposing that a vote of condolence and sympathy with his bereaved family should be passed by the Society. This was seconded by Dr. Edis, our Treasurer, and supported by Dr. Heywood Smith in the most appreciative and sympathetic terms—appreciative of your late husband's eminent merits, and expressive of the great loss we had sustained, and full of sympathy with you in your inexpressible bereavement. This resolution, it is almost needless to say, was carried unanimously.

It was further proposed by our Honorary President, Dr. Robert Barnes, and seconded by Dr. Routh, in terms that, I am sure, would be appreciated by you, were it possible for me to repeat them, that, as a further tribute to the memory of the deceased, and as a further expression of our regret and respect, the Society should at once adjourn. This resolution was also carried unanimously.

In conveying these resolutions to you, I may be permitted to add the expression of my own sense of personal loss in the death of your distinguished husband, to whom I am indebted for many acts of kindness and many words of encouragement, and whom to know was but to esteem ; and when it was granted to me to pay the last tribute of respect to his remains, I could not but be struck with the numerous and extraordinary marks of affection offered to his memory. It will at least be some consolation to you in your affliction to know that he was so much esteemed, and that his work has been so much appreciated. I remain, Dear Madam,

Yours faithfully,

GEO. GRANVILLE BANTOCK, President.

Poyle Manor, Colnbrook, Slough.

DEAR SIR,—Will you kindly convey to the Members of the Gynæcological Society our very sincere, if tardy, thanks for the exceedingly kind and sympathetic manner in which they expressed their sense of the loss the Society had sustained in the death of my dear husband, and for the personal share they felt in grief for his loss. His interest in the Society was earnest and true, its welfare very near his heart, and among its members he knew he had many sincere friends, which friendship was doubtless cemented and increased by the difficulties and labour they together underwent in founding a new Society, a matter at all times anxious and hazardous. With renewed and sincere thanks to the Society, I remain,

Faithfully yours,

SARA S. MEADOWS.

DR. BANTOCK, President of the Gynæcological Society.

The PRESIDENT announced to the Society that he had received from Mrs. Meadows the whole of her late husband's medical library as a gift to the Society, in accordance with his request to that effect.

Dr. BARNES proposed and Dr. Routh seconded a resolu-

tion that the best thanks of the Society be given to Mrs. Meadows for the valuable gift of her husband.

Dr. EDIS then proposed, and Dr. Heywood Smith seconded, the following resolution :—‘ That a congratulatory address from the Society be forwarded to her Majesty the Queen and Empress on this the occasion of her attaining the fiftieth year of her reign.’ This resolution was carried unanimously.

Mr. GREIG SMITH showed a dermoid tumour which he had successfully removed. The case was interesting inasmuch as there was no uterine attachment of the tumour, its pedicle arising from the omentum. The specimen was referred to Mr. Bland Sutton for examination, who reports as follows :—

Report on Mr. GREIG SMITH'S Specimen of Abdominal Cyst, adherent to the Omentum.

The specimen consists of a cyst of the size of a large melon. Attached to it is a piece of Fallopian tube about three inches in length, consisting of the fimbriated end ; the fimbriæ are more or less matted together. The proximal end of the tube is rounded off, but leading from it is a thin strand of tissue, the remains of the bond uniting it to the uterine segment of the tube. A second but much smaller cyst stands off the main mass, near the tube. At the spot where the Fallopian tube is attached to the cyst a mass of tissue of about the size of a Tangerine orange exists, and jutting from this is a fringe of omentum about an inch and a half at its widest point. This contains vessels and may be regarded as the pedicle of the tumour. On splitting the pedicle an interesting arrangement of parts was found.

On reference to Fig. 1 it will be easily seen that at O we have ovarian tissue, as verified by the microscope ; this contains many dilated follicles, some of which were of the size of currants. The remaining portion, D, is occupied by a dermoid cyst, rather larger than a walnut. The contents of this cyst were removed before the specimen came into my

possession. Sprouting from the wall of the cyst is a cluster of glands with wide orifices, and surmounted by a tuft of short, thin, delicate, lanugo-like hairs. The walls of this cyst when examined microscopically present an interesting appearance, especially sections carried through the glandular patch. The surface consists of a thick layer of epithelial cells, but there is nothing representing the horny layer of the skin;

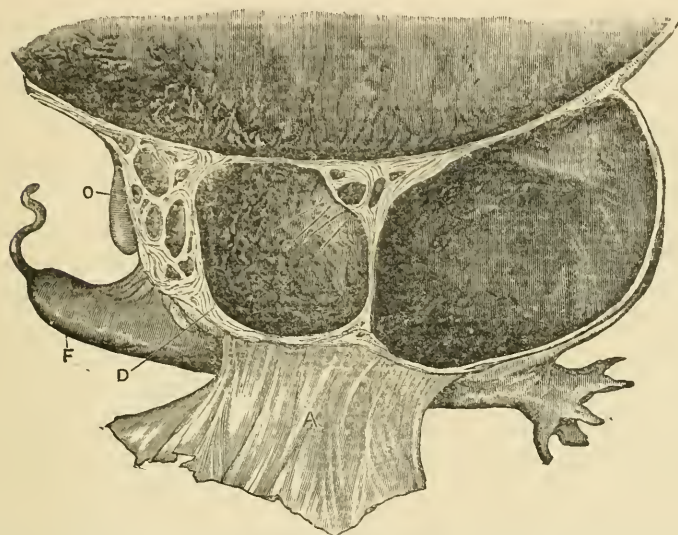


FIG. 1.—A section of the pedicle of the tumour. O, Ovarian tissue with cysts. D, Dermoid with glands and hairs. F, Fallopian tube. A, Omentum.

beneath this tissue is everywhere beset with acini of sebaceous glands. By comparing a series of sections I have been able to construct the following drawing (Fig. 2), from which it will be seen that the glands are of the branched variety, with a very wide duct; projecting from the side of the duct is a thin delicate hair; thus in their relation to the glands, as well as in general appearance, the hairs may be regarded as lanugo.

Not the least interesting point in the case is the fact that the omental adhesions occur on the wall of the dermoid cyst, the ovarian segment being quite free, and this is the case with the remainder of the tumour.

Not only is the ovarian nature of the tissue marked O in Fig. 1 confirmed by the microscope, but by careful dissection the parovarium was found spread out on the wall of the large cyst, and the vessels of the pampiniform plexus were found entering the ovarian hilum. The detection of the parovarium is of value, for it shows clearly that the cyst originated in the ovary proper and is not a dilated parovarian tubule. Hence

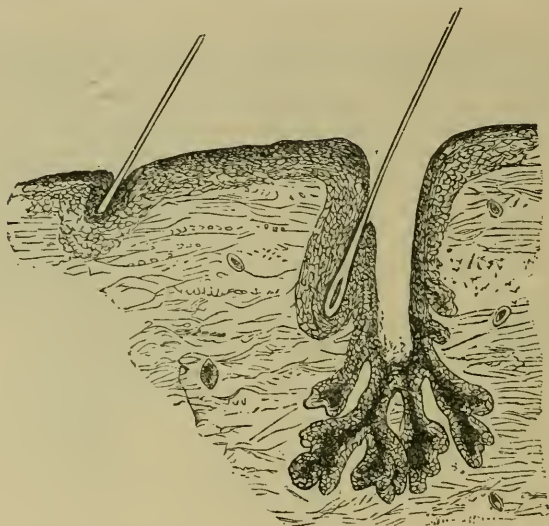


FIG. 2.—Microscopic section of the cyst wall. It shows the large size and branchings of the glands. (The drawing is a compound of many sections.)

in this specimen we have a dermoid and a cyst occurring in the same ovary, a combination not very unusual.

Apart from any differences of opinion as to the mode by which this tumour became detached from its uterine connections, it is a specimen of considerable value. For there can be no doubt whatever that the cyst and the dermoid originated in the ovary, and became subsequently detached, the original connection with the uterus being established beyond all doubt by the presence of the distal end of the Fallopian tube on the cyst. The peculiar value of the specimen consists in the support that it affords to Doran's view that dermoids of the

omentum are probably never primary, but are really ovarian dermoids which have become separated from their pedicles. It is singular that, notwithstanding the large size of this tumour, compounded as it is of oophoritic cysts, and a dermoid, the only adhesions to be found in any part of its circumference are entirely confined to the region of the dermoid.

Dr. RUTHERFOORD wished to know if any traces of twisting of the pedicle could be found in the case mentioned by Dr. Greig Smith, as in some cases where ovarian cysts were found detached from the uterus there was found evidence of much twisting of the ligament, and this had evidently led to their final detachment from the uterus after contracting adhesions with neighbouring omentum.

Dr. BEDFORD FENWICK said :—It would be very interesting to know in what condition the ovaries were found in this case, a point which I did not hear noted in the very clear description given by Mr. Greig Smith. And especially I should like to know whether there was any marked degenerative change in the organ on the opposite side from the tumour. I would also venture to suggest that there is yet another explanation besides those already enunciated, as to the possible place of origin of this new growth. We know that dermoid masses may grow from many other tissues, and in connection with many other organs than the ovary. For example, a patient has just died in the London Hospital, whose autopsy revealed a dermoid tumour, typical in its walls and contents, attached solely to the descending colon, just above the sigmoid flexure. Below this there was a constricting ring of malignant disease, which caused the obstruction which caused death. Why need we, therefore, in this case of Mr. Greig Smith's, enter into learned disquisitions as to the whys and the wherefores, and as to when this tumour became separated from the ovary? I would contend that it is pathologically possible, and perhaps even more probable, that it was never connected with the ovary at all, but that it began

and continued its existence with the selfsame and only little adhesion which was finally found and severed at the operation.

Dr. BARNES suggested that the mode of detachment was by rotation of the tumour upon its axis, and thus gradual atrophy of the pedicle would end by detachment. He had seen such a process. He thought this more likely than primary adhesion of the cyst to the omentum, and subsequent stretching of the pedicle.

Dr. HEYWOOD SMITH said that some years ago he had a similar case at the Hospital for Women, where there was no attachment of the ovarian tumour except to the omentum, the vessels of which were greatly enlarged.

On the question of the cause of the severance of the original pedicle in such cases, as nature never wasted her efforts, he considered that, owing to the large size of the omental vessels and their free anastomoses, the tumour received a considerable blood supply easier than through the vessels of the pedicle, and so these from disuse became atrophied.

Dr. R. C. BENINGTON, *on Loss of Blood per Vaginam during Pregnancy.*

In 1883 Mrs. S., multipara, sent for me, fearing a miscarriage. She was about three months pregnant. Occupation, washer-woman. She informed me that whilst at her work a sudden gush of blood had taken place per vaginam. I found her lying down, as a precaution against further loss, but feeling and appearing quite well, in fact more easy than she had done for a day or two.

Vaginal examination gave only negative results. I kept her in bed a day or so, and left orders that if anything more occurred I was to be sent for. I heard no more of her for about a month, but owing to loss of notes I cannot be certain as to exact date, when a similar occurrence had taken place, and from the condition of her clothes the loss seemed to have been extensive. Again I failed to detect any cause. She informed me, however, that before it had come on she had felt weight

and pressure in the parts. I told her to send for me next time, if possible, before the hæmorrhage occurred. After another lapse of some weeks she again sent for me, and I arrived before the hæmorrhage had taken place.

On vaginal examination I found the vulva enlarged, and on passing the fingers into the vagina I became conscious of rolls, exactly to the feel like soft sausages. I could pass my finger round them and roll them about during the examination. A sudden gush of blood took place, apparently half a pint or more, and the whole phenomena disappeared, the vulva gaining their normal appearance in a few minutes.

After this I advised her to do less standing, and to rest during the latter part of the day. I heard no more of her till her confinement, which was tedious, and needed instrumental assistance. She has since had another child, without any return of her previous symptoms.

I have ventured to report this case, although occurring some time ago, in consequence of re-reading Dr. Barnes's paper on Vicarious Menstruation, as it seemed to have some bearing on his remarks respecting discharges of blood per vaginam during pregnancy.

Dr. BARNES observed that the case might be one of placenta prævia. In this complication it was often the case that hæmorrhages occurred at menstrual periods. It was probable that the hæmorrhages came not from the body of the uterus, but from the cervix or lower zone. In pregnancy there was the high nervous and vascular tension which would find issue from some mucous surface, and most easily from an organ specially charged with this function. The case was an interesting one as showing that even copious hæmorrhages in early pregnancy did not necessarily entail abortion.

On the Method of Flap-Splitting in Certain Plastic Operations.
By LAWSON TAIT, F.R.C.S.

This method of operating, which I first advocated for cases of vesico-vaginal fistula in 1876, has, in my experience, proved a very valuable addition to our resources in this diffi-

cult department of surgery. The only methods available up to that time, so far as I know, were those of denudation and transplantation of flaps ; but on this point I may find that I have been anticipated : it is so very hard to be original nowadays. I cannot find, however, in any description of operations for vesico-vaginal fistula, for torn perinæum, for resection of intestine, or for obliteration of a hernial ring, that my method of flap-splitting has been specifically indicated by any previous writer. If it has been, it is a pity so useful an addition to our art has not been properly appreciated.

My attention was directed to the necessity of some such process as this by having placed under my care two cases of old-standing vesico-vaginal fistula upon which several other surgeons had operated unsuccessfully, and where after each operation the difficulties of the cases had been increased by each denudation. The rawing of the edges of flaps in the ordinary way means necessarily a diminution of the amount of the tissue at the disposal of the operator. In most of such cases there has been so much sloughing and subsequent contraction and adhesion that every additional loss of tissue must militate seriously against the success of the immediate proceeding, and the possibility of any which may be required in the future by reason of partial or total failure in the present.

I have long since ceased to perform any of the operations in general surgery, but I feel sure that in such a case as cleft-palate my principle of flap-splitting might be employed with advantage, for not only does it save tissue, but it has the advantages of affording a much broader adaptation of the two raw surfaces, a much firmer band of union with junction of similar tissues, and a much diminished possibility of pin-hole openings being left. It would be a valuable addition to the special operation I described in the 'British and Foreign Medico-Chirurgical Review' for July 1870.

Denudation of flaps to be united means incision more or less at right angles to their surfaces. My plan means incision into the flap from its free margin, and from its edge in a

direction between, and more or less parallel to, its plane. It may be roughly illustrated by cleaving a green stick and bending the two halves outwards into right angles. The rule is to make the incision on the white line of cicatrix, when such exists, as it always does in a vaginal fistula or a torn perinæum.

Thus, in a typical example of punch-hole fistula into the bladder, produced by prolonged confinement of the anterior vaginal wall between the child's head and the arch of the pubis, by far the most common form of vesico-vaginal fistula, this cicatricial line is not median to the plane of the flap, but is on the vaginal aspect of it. The incision is made all round the hole for a depth of about three-eighths of an inch, till the two mucous surfaces are completely freed from one another, and the bladder mucous surface is turned inwards, and the vaginal mucous membrane is turned outwards, into the vagina. The adaptation of the flaps is then secured, so that each pair is separated; the raw surface is opened like the limbs of the capital letter **Y**, and secured together like the flanges of a **T** iron girder, or like the flanges of the pipe of a pump; only the sutures are not arranged like the bolts of a flange, but in one of two ways, as follows:—

First, if the aperture be small and round, one suture may be used in this way. The aperture is to be considered as having two poles, which are the points of ingress and egress of the thread, and these holes may be placed at the opposite points of any diameter which may seem most convenient to the operator. A curved and eyed needle is made to enter the vaginal mucous surface at a point corresponding to a distance of about a quarter of an inch outside the apex of the **Y**-shaped division of the flap, and to travel in the thickness of the vesico-vaginal septum in a curved direction, following the curve of the separation of the flaps till it comes to the opposite pole of the diameter of the fistulous opening, and then the point of the needle is made again to emerge into the vagina. The needle is now threaded and withdrawn, one half of the fistula being thus embraced by the suture. The needle

is again made to pass similarly round the opposite half of the fistula, the points of ingress and egress being identical with those of the first half of the proceeding. The needle is again withdrawn, and in this way the circumvention of the fistula is completed. When the thread or wire is drawn tight and secured, it will be found that the flap of vaginal mucous membrane is made to front into the vagina, and that of the vesical mucous membrane to front correspondingly into the bladder, whilst the broad raw surfaces between them are brought fully together.

Secondly, if the fistula is so large that it is advisable to close it in a linear direction, the method of applying the sutures is somewhat different, though the principle of the process is the same, and the intention of securing adaptation of the opposing raw surfaces of the two sets of limbs of the Y-shaped flaps is identical. The sutures are applied by making the needle enter the raw surface of the vaginal limb of one of the Y's, burying it deeply in the tissue of the septum just beyond the point of division of the limbs, and then bringing it out on the corresponding raw surface of the other limb of the same Y. The needle is then threaded and withdrawn. A repetition of this insertion is then made in the other Y. The needle is threaded by the distant end of the thread from the other Y. The needle is then withdrawn, and the suture is ready for being tightened. When a sufficient number of sutures have been placed, they are tightened, and the fistula is closed. I always use silver wire for the sutures, and either an eyed or a tubular needle with variously curved interchangeable points for inserting the sutures, and the latter by preference. As a matter of fact, it is generally much easier to insert these sutures by means of the forefinger guiding the needle without any speculum than with the assistance of the latter instrument.

When the arrangement is satisfactorily completed it will be seen that a much broader basis of union is secured than by the ordinary process of denudation, that the fronting flaps further aid in preventing harmful fluid passing between the

raw surfaces, and, better than all, if the operation fails, no more tissue has been lost, the flaps fall back in their places, and the success of a second effort is not diminished, as it certainly is by denudation.

The peculiar incision, which resembles a plumber's washer in its area, is easily effected by an ordinary scalpel and a small sharp hook. The same principle is that which I employ in my special operations on the perinæum, of which there are two, for different purposes and having some differences in detail.

The first I term extension of the perinæum, and I use it for protrusion of the uterus or bladder. For protrusion of the uterus I operate from behind forwards, truly extending the perinæum. For protrusion of the bladder I operate from before backwards, making, as it were, a second and inverted perinæum. But the operations are practically the same. They make an artificial shelf, on which the previously protruded organs rest, and by which they are retained completely. Of the operation for protruded uterus I can now speak with confidence, for I have cases in which it has maintained absolutely perfect results for more than ten years. Of the operation for protrusion of the bladder I cannot speak so positively, for my efforts in that direction have been very recent. Patients who suffer from such protrusions are, in my experience, entirely confined to the hospital clientèle. There they occur in great numbers, whilst in my private practice I never see them. The condition arises chiefly from want of care in the post-puerperal week, though I have seen some congenital cases. The great bulk of the sufferers are fearfully ignorant and careless, and, on this account, for years back I have persistently refused to use pessaries for their relief, and have advised them to apply to some one else if they decline the method of relief of which I am now speaking. This policy I have adopted for the very simple reason that they neglect their pessaries, will wear them for years without any attention, and very often patients have come to me with pessaries, which I had carefully fitted years before, penetrating into the bladder

or rectum. Worse still, similar cases have gone to other surgeons to air their troubles; and, similarly, the patients of other surgeons have come to me. Therefore, I will have no more to do with pessaries for the relief of protrusions in hospital practice.

The operations are very simple. For the extension of the perinæum from behind forwards I make, by means of a sharp pair of pointed scissors, a horse-shoe incision round the perinæum, the horns extending as far forward as I judge to be necessary. It is made deeply into the substance of the labia on each side, and when its flaps are separated it makes a V-shaped groove on each side. As many silkworm gut sutures as seem necessary—generally three or four—are inserted by a handled needle, exactly as recorded in vesico-vaginal fistula (second method), the needle entering well within the margin of the wound, so as to open out the V completely and evert its lips. The outer flaps of each V on the several sides are turned outwards, and the inner turned correspondingly inwards, and when the stitches are tightened they are in this way approximated as plane surfaces, and so they unite, making a very firm and thick platform for the displaced organs to rest upon, and this rarely gives way. I generally now have the sutures in for three or four weeks.

For protruded bladder the incision is reversed, the base of it being turned outwards and being kept above the opening of the urethra, where there is generally plenty of tissue to permit of the incision, though that is not of much consequence, the necessity of support being chiefly at the centre of the vestibule. I do not know whether this operation will stand the test of time, but I do not see why it should not. Certainly every other operation I have tried for bladder protrusion has failed.

For torn perinæum the operation again is the same in principle, though different in detail. When the marginal folds of the buttocks are fully drawn asunder in such a case the old tear is displayed by a thin white line of cicatrix extending transversely to the axis of the rent, which of course

was at right angles to the plane of the perinæum. The healing of the tear has taken another direction altogether, and we have the cicatrix at right angles to the wound. This is, so far as I can think out the question or know the facts, wholly unique in its occurrence. It forms the basis of the principle of the operation which I perform, and that is absolutely the opposite, as I have already said in a correspondence on this subject with Dr. Percy Boulton, of the principle of all denuding operations. The scheme of my operation is to restore the old rent and unite it at right angles to its representative cicatrix—that is, at right angles to the plane of the perinæum. In this way, and in this way only, can the perinæum be truly restored, and from this operation only can it be hoped that the restoration will stand the attacks of subsequent labours, as a large number of my restorations have done. I do not know of one having been torn a second time.

Having the folds of the buttocks pulled firmly apart so that the cicatrix is put on the stretch, I enter the point at its extreme end on one side, and, keeping strictly to its line, I run through to its other extremity. The incision is about three-eighths of an inch deep, and it forms two flaps, a rectal and a vaginal. From each end of the incision it is carried forwards into the tissue of each labia for about an inch, and again backwards for about a third of an inch.

The vaginal flap A is held upwards (the patient being on her back), and the rectal flap B being turned downwards, the angles A F C being pulled by forceps diagonally upwards and inwards towards the middle line, and the angles B D E being pulled downwards and inwards. The lines C E thus become straight.

By means of a stout handled and well curved needle the silkworm gut sutures are entered on one side about an eighth of an inch within the margin of the wound (so as not to include the skin) at the dots A. They are buried deeply in the tissue as far as B, and then the needle is made to emerge so as to miss the angle of the wound. The needle again enters at the

large dots C and emerges at the dots D. By thus missing the upper or deep angle of the wound between B and C, the two great and divided masses of the old perinæum, which lie in the parallelograms respectively bounded by the lines of large dots A B and C D, are accurately adapted. The rectal and vaginal flaps respectively *point* into the rectum and vagina, and like an old-fashioned flap-valve prevent noxious material entering the wound. The resulting mass of perinæum is amazingly large, union is almost inevitable, for I have failed only twice in many hundreds of cases, and then because there had been previous denuding operations. The resulting cicatrix is absolutely linear, and so resembles the natural raphe that in three or four months after the operation it is quite impossible to determine, from the appearance of the parts, that the perinæum has ever been injured, for there are no stitch-hole marks left to tell the story. The pain experienced after the operation is trifling compared to the old method of quilled or shotted suture. I leave the stitches in for three or four weeks, and take great care that the rectum and vagina are washed out twice daily.

A further adaptation of the same principle has been of great service to me in closing the rings of a large number of cases of exomphalos and in a few cases of inguinal hernia. I have not yet tried it in femoral hernia, for the reason that the ring of that hernia is not complete, the posterior wall, which in such operations must of necessity be the most important, can hardly be said to be defined. In umbilical hernia the results may be made permanent, for one of my cases has remained cured for now eleven years. My inguinal cases are all recent. In all the cases of hernia I have left the sutures buried deeply and have closed the tissues over them. In some the sutures have been silk, but of late I have used silkworm gut entirely. None of my cases have died, and in none have the buried sutures given any trouble. The process is quite simple, I simply split the tendinous ring instead of paring it.

Applying the same principle to the closure of wounds of

the intestine has given me extremely satisfactory results, and I have no hesitation in pronouncing this particular form of suture much better than any of the numerous forms of suture which I have yet seen described. A very complete summary of these is to be found in Mr. Stanmore Bishop's most admirable paper.

In my early practice in abdominal surgery I had occasionally the misfortune to injure the bladder when it was stretched over the face of a uterine tumour, and in separating adhesions of intestines I have torn a hole in them several times, but my results have always been satisfactory even with these grave accidents, and I attribute my success to the method of repair. In closing a wound of intestine I separate the mucous and peritoneal layers a little way down in the axis of the tube all round the wound, just as I have previously described as the process to be employed upon the margins of vesico-vaginal fistula, the union being secured exactly as in the flange joint of a water-pipe, with the addition that there is an internal as well as external flap lip. The needle is made to enter immediately on the inner side of the peritoneal edge, and is made to travel deeply through the muscular layer and out again immediately within the mucous lip. This is repeated on each side of the severed tube, the basis connection being made either by interrupted or continuous sutures. If it is at all necessary, an additional continuous suture is then passed round through the tube so as to connect the two peritoneal flaps, the thread used in such operations being extremely fine and the needle very small. This kind of suture does what no other does, it unites muscular tissue to muscular tissue, mucous coat to mucous coat, and the divided peritoneal layers to each other. All other sutures have only the result of uniting the two peritoneal surfaces. I propose for it the name of the 'flange suture.'

Mr. PHILLIPS HILLS said: Mr. Lawson Tait seems to attach greatest importance in the flange suture to two points: (1) great breadth of tissue approximated; (2) similarity of tissues approximated; but neither he nor any other speaker

has this evening alluded to a most important advantage in the suture, or, more properly, in the creation of the surfaces to be approximated, viz. that the incisions are made parallel with the longitudinal axes of the blood-vessels, whereas in the denuding operation the incisions are at right angles, and necessarily cut off the ends of all, thus creating much greater disturbance to the vascular supply, and I consider Mr. Lawson Tait's success depends as much upon this point as any other connected with what he proposes to term the flange suture.

Dr. CHALMERS asked if Mr. Tait, in using the circular stitch at the base of the flap in vesico-vaginal fistula, dealt in any way with the margins.

Dr. FANCOURT BARNES said he had restored many lacerated perinæums by Mr. Lawson Tait's method. Sir Spencer Wells had seen him operate on two occasions by this method, and considered it an improvement on the old operation.

Mr. LAWSON TAIT briefly replied.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, JUNE 22, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT, IN
THE CHAIR.

PRESENT: 14 Fellows, 9 Visitors.

The following were elected Fellows of the Society :—Dr. G. W. Hutchison, Dr. W. H. Humiston, Dr. B. Duke, Dr. E. Crouzat.

The following were proposed for election :—Dr. G. H. Balleray, Paterson, U.S.A. ; Dr. Henry F. Marley, Padstow ; Dr. Thomas J. Hitchins, Crawley ; Dr. J. St. Clair Boyd, County Down.

The PRESIDENT then informed the Society that in accordance with their wishes he had addressed the following letter to her Most Gracious Majesty the Queen, congratulating her on the attainment of the fiftieth year of her reign :—

MAY IT PLEASE YOUR MAJESTY, We the President and Fellows of the BRITISH GYNÆCOLOGICAL SOCIETY desire to offer to our Sovereign Lady, the Queen, our most loyal and sincere congratulations on the attainment by your Majesty of Fifty Years of your happy reign over this great Empire.

Recognising as we do the great fact that under your Majesty's wise and fostering rule the culture of the Arts and Sciences generally has distanced, in an unprecedented degree, the progress made during any previous co-equal period of the world's history, thereby justly entitling the present to the renown of being distinguished as the *Victorian Age*, we venture, on this auspicious occasion, to call special attention to the fact that, during the same memorable half-century, the Science and Art of Surgery have progressed most signally, that that progress originated in the treatment of maladies incident to the

female sex, in whose common welfare your Majesty has always shown the most sympathetic interest, and that the beneficial influence of that progress, which the British Gynæcological Society has been established to foster and encourage, has been felt throughout the whole range of Surgery.

Heartily acknowledging this boon as one of the rich blessings vouchsafed to suffering humanity, under the benignant sway of our august Sovereign, we earnestly pray that your Majesty may long be spared to evoke the gratitude, and to reign over the affections of a free, loyal, and prosperous people.

Signed on behalf of the British Gynæcological Society,
G. GRANVILLE BANTOCK, M.D., President.

The PRESIDENT then showed several specimens of uterine myomata, and a cyst of the ovary with twisted pedicle.

Dr. BEDFORD FENWICK said: With reference to your second very interesting case, Sir, I should be glad to ask one or two questions; and first, as to whether it is your experience that, in these cases of uterine fibroids, outgrowths causing dragging or pressure on the omentum cause pain with any degree of invariability. I gathered from your remarks that you considered this compression or adhesion had been the cause of the great pain your patient suffered from. But I have seen many cases where disease has involved, more or less completely, the omentum, and yet pain was not complained of at all. Some two years ago, for example, a patient was admitted into the Hospital for Women in a moribund state. She complained greatly of dyspnœa and the general discomfort arising from the considerable amount of ascites which was present. She repeatedly asserted she had never had any pain. Her autopsy showed that the omentum was converted into a solid cake of new growth. Now, Sir, if the omentum *per se* were at all a sensitive tissue, surely, in a case like that, one would expect to find very considerable pain complained of. And several other cases of different new growths in the omentum I can recall to mind, in which this symptom was conspicuous by its absence. And secondly, Sir, while heartily congratulating you on the success of your

heroic ice-pack treatment, I should like to know whether, in your great experience of fibromata and the hyperpyrexia after operation of which you have told us, you have observed this high temperature often followed by similar pareses or paralyses. For, if that be so, I need hardly point out how very important a bearing the fact would have upon the exact localisation of what just at present is being theoretically called 'the heat centre.' I well remember, some eight years ago, a woman who was repeatedly admitted into the London Hospital for hyperpyrexia. So far as I know, the cause was never clearly made out, but she would come to the Hospital and be taken in with a temperature of 108° F., or even 110° . When treatment had reduced this to the normal she almost invariably had some paralytic or paresic results. Once it was complete paraplegia; once or twice it was hemiplegia with partial aphasia; but generally it showed itself as a general and marked weakness of one leg and one arm, or even of both sides concurrently.

The Endometrium in the Cycle of the Rat.

By Dr. A. W. JOHNSTONE.

Mr. President and Gentlemen: During the preparation of a paper which I communicated to the Society last session, it seemed to me that I had discovered a clue to the history of the endometrium of mammals, and I intimated that I might be able to make a further communication on this subject. As I proceeded with the work I found that the theory of the endometrium which I had already advanced, that it has a truly adenoid function, found additional support from my work. It appeared to me, however, that there were some conditions of the endometria of some animals to which my theory did not seem applicable in its entirety, and that while in some specimens of the uterus I found a state somewhat resembling the lymphatic gland, in others the appearance was more that of the sub-mucous tissue lining the alimentary canal.

These conditions I found occurring in some omnivorous,

some carnivorous, and some herbivorous animals. What these varying histological appearances meant was at first to me an enigma ; but, after undertaking a systematic study of the rut, it became perfectly plain that these different states in the same animal were nothing but the different stages through which its endometrium passes in its preparation for the reception of the *ovum*. Whilst it was my original intention to have given in this paper a complete comparative study of the endometrium, I find that the space to which I must confine its physiological part contains barely a description of the transitions through which the endometrium passes, not only in its preparation for the manufacture of the placenta, but also in its destruction and removal of the maternal portion of the placenta of the bitch. To give a thoroughly classified statement of each minute modification and variation of this process throughout the whole of the mammalian world would be the whole work of a lifetime for one man, and it will prove a fruitful mine into which microscopists can delve for generations to come. I hope, however, with a minute description of these transitions in the dog, to give you a typical picture of the whole, and by it to show the thread which makes the whole nursing world akin. Had there been time to make them, this paper would have been illustrated with sketches in the same way as that in which I illustrated my previous paper ; but the demands of a rural consultation practice, during the working months of one year, admit of nothing more than a word-picture of these shifting conditions. I hope, however, to use the bright light of our clear summer for making these illustrations in ink ; or, better still, if I succeed, as is my expectation, in photographing them, I shall present them in due time for the criticism of the Society.

The animals which I used in the study of the *rut* were bitches killed painlessly, at its various and intermediate stages. The uteri were removed from the body at once, sometimes placed in a weak solution of bichromate of potash for a few days, but some were instantly frozen, cut, and mounted in a fresh state. Carmine was the only staining re-agent used, but, as

shown before, it is not necessary to use re-agents to bring out any stages of the corpuscular development in the adenoid threads. In the quiescent state—that is, when the animal had had no pups—and some little time after the rut had passed by, what I told you of the cow's uterus is a fairly good description of that of the bitch. That is, the epithelial lining of the cavity of the body is much thicker than in the human being; but, like the human, the utricular glands are lined by a single layer. The lymphatic canals, which lie in the sub-mucous tissue along its muscular body, are fairly large and plentiful, and the intercellular spaces which run well in toward the cavity of the body are equally numerous. But the whole lymphatic apparatus is not so rich as that described in the cow, and, instead of the bunches of adenoid tissue known as the cotyledons scattered over the bovine uterine cavity, the whole of the sub-mucous tissue looks like a rudimentary adenoid structure. In it I found some of the branching mucous corpuscles described as the ordinary centres of mucous tissues; but besides these I found long spindles, as well as bands and plates, such as those I described in the child's endometrium. In these bands, plates, and threads there is a certain amount of corpuscular development going on, so that beside the described structures there are quite a number of granules developing into growing and fully grown lymphatic corpuscles. These, however, are not sufficiently numerous to give one the impression of a lymphatic gland, as the woman's endometrium does. A casual observer might readily mistake this membrane for a piece of the ilium or a part of the œsophagus. As the time approaches toward the rut the characteristics are not greatly changed, and the only noticeable difference is in the gradual increase of the corpuscles.

But the lymphatics are rich enough to carry away these cells almost as rapidly as made, so that we never have the great aggregation of them that the full-grown woman presents. I have not had time to study the inception of the rut, hour by hour, as the importance of the subject demands,

so that I cannot tell exactly through what changes each different shaped element goes in its subsidence into the protoplasmic mass into which the fully developed œstrus brings the endometrium.

When the animal is in full heat the labia present the characteristic œdematous appearance with slight discharge of mucus from the vagina, and are accompanied by an equally positive declaration from all the male animals in the neighbourhood that the rut is in full bloom. I have found, as just indicated, that the whole of the sub-epithelial endometrium has been converted into an almost structureless mass in which the nuclei of a few branching corpuscles are all that can be distinctly made out.

The utricular glands, however, are left intact, and, with the exception of a slight swelling of each of their epithelial cells, there is no appreciable change in them. The changes necessary for manufacture of the placenta have been so well studied and are so well known to you, that it is not necessary here to allude to them, but, passing over the whole of the pregnant state, I will come at once to the degeneration and removal of the maternal placenta, and to the return of the endometrium to its ordinary quiescent state. After delivery, as has been said by many authors, the first change is the starving out, degeneration, and disappearance of the placental system of endometric blood-vessels by the contraction of the muscular walls.

In the nursing bitches which I have examined after the disappearance of these blood-vessels a tissue is left which is composed, of the large neutral cells about which we have heard so much. These cells undergo a kind of granular degeneration which gradually breaks them up into smaller and smaller bodies, until at last we find them so small as to be carried away from their original site by the lymph stream which bathes them on all sides, and by degrees they are worked from the surface of the membrane bordering the cavity of the body back to its deeper layers, along its muscular junction where they enter the lymph radicals and are swept away to the general circulation.

The earliest time after delivery at which I have been able to examine the endometrium, the layers next the muscular wall are exactly in that which I have described as the quiescent state. By degrees this tissue spreads inward, and encroaches upon the old placental tissues, sending its offshoots deep in among the neutral corpuscles, gradually surrounding and replacing them until at last the whole of it is supplanted. This adds additional weight to the statement I made, which will be found on p. 299 of last year's volume of the Society's 'Transactions,' that the whole of the lining is not used up even in the manufacture of the placenta, but that, like processional teeth, the menstrual organ keeps its steady growth under the fully developed after-birth. In this renewed tissue the uterine glands have not disappeared, but show up their usual single layer of epithelium.

On the site of the placenta, however, the regeneration of the epithelium is as gradual as the growth of the new endometrium.

Thus, step by step, I have endeavoured to describe each period of the cycle through which nature takes the endometria in the process of reproduction, and from the labour that they entail on the lymphatic vessels, and especially their rôle in the removal of the maternal after-birth, we have an absolute demonstration that in animals that maintain the horizontal position the sewers of the endometrium empty into the lymphatic circulation, and not into the cavity of the body as in the human being. Owing to the difference in the amount of work which the removal of the diffuse, the single, and the multiple placenta must necessarily entail upon their absorbents, we ought not to be surprised at finding some with a much richer lymphatic circulation than others, nor ought we to be surprised at finding those creatures which expel the whole of the placenta both maternal and foetal with almost no lymphatic circulation, and who depend almost entirely on the drainage from the cervix and on the absorption of the blood-vessels for the removal of matter for which the economy has no further use.

This lack, it seems to me, explains the old riddle, 'why is it that the human being and monkeys are the only creatures that have a lochial discharge?' With this difference in arrangement of lymphatics and apparent isolation from all the rest of the mammalian world in the method in which the after-birth is got rid of, it will at once be asked, 'In what consists the unity of type, and where is the bond that binds us to the lower creatures?' In answer to this, my reply is that it is in the relation of the tissue itself which composes the stroma of the endometrium, and *not* in the *blood-vessels* which feed it, nor in the routes and methods by which its products are removed. It took decades, I might almost say generations, of histologists to work out the now simple problem of the development of bone. The calcification of cartilage, its ultimate resorption, its conversion into medullary tissue, and from it the origin of the bone layers, were parts of a *riddle* that it seemed no man would read. When it came to the transition of connective tissue into a medullary corpuscle, its calcification and metamorphosis into another form of the medullary state, and its ultimate conversion into the osteoblast, was an enigma that seemed impossible to be solved. But, to speak plainly, in this we have an analogy of what the stroma of the endometrium is constantly doing. In the study of the bitch's rut, which I have just detailed, there was an undoubted transition of the stroma of the endometrium into the medullary state, and in the varied stages of its growth from its most passive to its most active state there was a gradual preparation for it in the manufacture of the lymphatic corpuscles; for these are undoubtedly the most easily found of all organs in adult tissue, transformed into the medullary state.

The formation of this medullary tissue found in the first stages of the formation of the placenta has been described by too many authors to need repetition here. Also its conversion into the ordinary myxomatous tissue and into the so-called granular organ of Ercolani, requires only a passing mention. Before I leave this name, however, much as I revere it, and highly honouring him and his work as I do, I

am forced to the conclusion that Ercolani is either wrong in regard to the wholesale '*destruction*' of endometrium before the formation of the decidua, or else his translator has done him injustice. The illustrations by which he seeks to establish this, to me show nothing but the various steps in the transition of the endometrium into the medullary state; and as for the development of the new blood vessels, which he tries to prove is the source whence the medullary tissue arises, he has merely put one of the effects for the cause, for his description of them and their process of manufacture is exactly that of the first capillaries in bone.

He has no more right to say that the stroma of this tissue is an outgrowth from their walls, than one could justly call the Haversian systems the offshoots of the capillaries which they surround. It has long since been shown that in the metamorphosis of cartilage into bone the formation of *blood-vessels* is by no means the first stage. It is true that where such rapid transitions are going on an unusually large nutritive supply is necessary, so that in the formation of bone, in the manufacture of the placenta, as well as in the repair of a corneal ulcer, we find that transudation of the nutritive fluids through long distances soon fails to bring the amount of nutritive material necessary; just as the fireman when the stream of his nozzle fails to reach the conflagration, finding that the point of deliverance must be brought nearer, secures a result by splicing his hose, in like manner nature brings her base of supplies nearer by extending the loops of the capillaries, thus keeping the required nourishment abreast of the growth.

In the rut I have already shown that the first stage of these protoplasmic transitions takes place before pregnancy exists, and before anything but a slight loss of the most superficial layers of the epithelium has occurred, so that I am forced to the conclusion that Ercolani is right in saying that there is a loss at the spot where the ovum adheres, but that, instead of its being a destruction of the whole endometrium down to the muscular layer, it is merely a desqua-

mation of the epithelium laying bare the subjacent medullary tissue with which the chorion unites and forms the placenta.

By this same study of the *æstrus* I have found that Aveling with his nidation and denidation theory was not so far wrong after all, but unfortunately he applied it to the wrong class of the mammalian order. Had he applied it to those animals which have no menstruation, and which have a regular cycle, at the end of which alone the male is received, and had he described his *denidation* as a gradual return of the newly formed medullary tissue to its pre-existent state, assisted by a lymph stream which washes its products into the general circulation, instead of casting it out as an excretion through the vagina, I believe he would have been on the bed rock of nature, from which no future science could shake him. Speaking of Dr. Aveling reminds me of a question which he asks Mr. Bland Sutton in the conjoint debate on our paper before your body, 'How he sustained his theory that the menstrual discharge was determined by sanguineous congestion, when it had been shown by Professor Stephenson that the greatest blood-pressure occurred a few days before the appearance of the catamenial fluid?' This, I think, I can now answer.

From the position of the endometrium, its surroundings and importance to life, we can never hope to get its capillary radicals, during its stages of development, beneath our microscope; but from the study of the methods by which they empty into the placenta, the large intercellular spaces and almost wall-less lacunæ into which they flow, I think we are warranted in saying that nature uses this increased blood-pressure to develop and elongate their fusil loops, so as to reach well down into the lymph-like structures, which heretofore have been nourished by transudation. In addition to this, these vessels give way to the pressure, and through them the cleansing stream is poured into the lymphoid interstices, in the same manner in which it passes through the spleen. The final escape of this blood, laden with the over-ripe lymph-corpuscles, into the cavity of the body must be

somewhat retarded by the coating of the epithelium which lines the cavity of the body and the utricular glands. It takes, however, but a short time to get rid of this new obstruction, for the degeneration which this congestion causes in it, combined with the *vis a tergo*, soon causes it to give way; so that by the time the greatest pressure is over the need of it will have disappeared; for a few of the minutest capillaries once open, the epithelium removed, the discharge will be apt to continue without any more force than the ordinary heart-pressure. Another clinical proof of the truth of its being a lesion of the capillaries is, that they stay open about the length of time that it ordinarily takes a blood-vessel to heal. But one of the strongest proofs of all exists in the way in which the maternal vessels are arranged in the human placenta.

Whilst discussing the mechanism of menstruation, I wish to strengthen a statement I made on p. 301 of last year's 'Transactions,' which is, 'the closer you get to the uterine body with your excision, the more sure you are to stop menstruation; so also the more sure you are to extirpate the whole of the nerve plexus, embodied in the tube and broad ligament, thus completely isolating the endometrium from the trophic and vaso-motor centres, which control it as they do every other organ.' Before that paper was read I had been much interested in this nerve plexus, which any one can demonstrate for himself by simply holding up a broad ligament between his eye and a good light. From deep down in the pelvic tissue branches of the sympathetic system radiate to the ovary and tube, and there is also quite a rich plexus which passes into the uterine tissue around or alongside the tube at either cornua. One large trunk, I noticed especially in many of Mr. Tait's excisions, lay close alongside the line of the cut, and if he had not been so careful to extirpate the whole of the tube, in many of his cases this trunk would have been left. It comes up at such an acute angle with the body of the uterus from deep down in the broad ligament that one must get his ligature around the very origin of the tube if he

expects always to secure it. In two cases that had to be operated on the second time for the production of the menopause, in which Mr. Tait removed the body of the uterus close down to the internal os, I found in the stumps of the tubes which had been left behind in the *first* operation this nerve had not been removed in either case. The second operations were successful—some might say that it was because most of the menstrual organ itself was removed; but there are far too many cases that have been successful, in which the endometrium is not touched, for this reasoning to be accepted; but it has always been my determination, if I should find one of those cases from which physical causes prevent the removal of the appendages, that I would if possible get down to the fundus of the uterus and place a ligature around the origin of either tube, and by their strangulation completely cut off the nerve-supply of the endometrium. I believe that thereby the menopause would be brought on. But I do not recommend this for general use, for we know too well the dangers from inflammation of a tube or ovary ever to leave them in an irritated condition when it is possible to remove them.

The conclusions, therefore, to which I am led concerning the life-history of the endometrium are, that it is a mucous structure in the truest histological sense, and while it is not in any animal merely a protecting coat, still in some the corpuscular development reaches a higher grade of exuberance than in others. The necessity for this variation is accounted for by the different amounts of work entailed upon the endometrium in the manufacture of the different kinds of placentæ.

In the diffuse placenta, as found in the mare, the alteration necessary to the formation of Ercolani's 'glandular organ' is very slight; the consequence is, the removal of the maternal portion of the placenta is much more easily effected, and the return of the rut is at a much shorter time in the mare than in any other of our domestic animals.

The multiple and single placentæ are much more complicated affairs, and the labour necessary to their elaboration is

much greater, the consequence being the return of the rut with much more delay in the cow and in the dog than in the mare. In woman, however, where the rut may be said to be sempiternal, the endometrium must be kept in a condition ready to take up and nourish the ovum at a moment's notice ; as her placenta is by far the most complicated of all her natural organs, her preparation for its manufacture must be the most elaborate of all. And, as has been shown in my former paper, the erect position will not permit the use of lymphatic vessels in the construction of the uterus. The consequence is the maternal organ cannot be absorbed, but is thrown off with the foetal envelopes, and passed out through the vagina. Ercolani has proved that in the other upright animals, such as monkeys, apes, and the like, the same conditions exist. The two great conclusions that I would draw from this work are, first, that the preparation of the endometrium for the reception of the ovum is of as much importance in that group of phenomena known as the rut, as is the escape of the ova from the Graafian follicles and their procession into the uterine cavity ; and secondly, that the one plane on which all the various phases of the mammalian endometric development depend is the medullary state through which they all must pass before the placenta can be formed.

I feel that I have already taken up so much of your valuable time in the physiology of the endometrium, that it would be an imposition on you to now give *in extenso* its clinical and pathological deductions. But fortunately for me, in his retiring address, my honoured Preceptor, your late President, has so fully anticipated me in presenting the practical side of the subject, that all that remains for me now to do is to confirm the views he then expressed. In a case of arrest of development, of which I now have in my possession the specimen, the uterus measures barely two inches, and the woman from whom it was removed, though aged thirty-nine, and an unusually large and fine-looking woman, had always great irregularity and difficulty in menstruation. It was one of those queer and formerly inexplicable cases when some-

times there would be for a period of several years total arrest of menstruation; at other times she would be comparatively regular for a year or so. The microscope showed her endometrium to be between the conditions shown in my paper on the menstrual organs of eleven and thirteen. So that, after all, the poor creature had gone through life trying to menstruate with an endometrium that was not far removed from the condition of the pig's, but with the one great exception that she had little or no lymphatic stream with which to relieve the tension. This adenoid view of the endometrium and its method of forming the placenta, at once explains to me the mechanism of membranous dysmenorrhœa, and the formation of uterine moles. By some irritation it gets a false start, and the attempt is made at a rudimentary placenta; so that after all they are merely slight perversions of a physiological function. The cure of chronic and corporeal metritis by the curette, chemical irritants, actual cautery and other powerful revulsives is accomplished not only by the mechanical removal of the indurated tissue, but by these proceedings the tissue is returned to the medullary state, and from the fresh start the tissues resume their normal condition. As I can testify by personal examination the soft myoma is nothing but an homologous growth from the adenoid uterine lining. In such a case where I assisted Mr. Tait to remove and subsequently made a careful study of the specimen, I found it to be merely a lymphoma. The production of mucous polypi is another phase of the same form of homologous growth. The bearing of this new idea of the *endo*-metrium on its heterologous growth Mr. Tait has so well explained in the address referred to that I must pass it with a mere mention.

Further elaboration of the solution of these time-worn riddles I fear would become tedious, but I cannot close without once more stating my view that the uterus, instead of being a mere appendage to the ovary, is as much a specific organ as the ovary itself, and its independence and totally distinct functions we now as thoroughly understand as we do

those of the matrix of the egg. Its association with 'ovarian activity' is that of two separate departments of an army, each of whose work must be thoroughly accomplished before the one common object can be attained. They are both controlled by branches from the lymphatic system, and instead of their actions being determined by each other, their orders come from that higher power which controls all functional activity. It is equally ridiculous to claim that the hydraulic laws of the vascular system will explain the action of the endometrium, for it would be just as rational to say that the variations in the pressure of a factory hydrant are the means by which the work of the factory itself is done.

Further I am of opinion that the great difference between the human animal and the higher apes on the one hand, and all the lower animals on the other, is due to the presence of a rich lymph stream in the latter and its absence from the former; the necessity for this difference, as already explained in my former paper, is the erect position in the one, the horizontal in the other.

In closing, let me once more thank you for the uniform courtesy with which you have listened to my feeble efforts, and to express the hope that the time is not far distant when we shall have a completely classified and tabulated statement, not only of the zoological variations in the endometrium, but also a complete history of its transitions through the cycle of the *Rut*.

Case of Fibroid Tumour of the Uterus, complicated with Extra-Uterine Gestation. Operation. By C. SMUTS, M.D., of Stellenbosch, South Africa.

(Communicated by Dr. Robert Barnes.)

Dr. SMUTS read the following case:—

Mrs. K——, aged 42 years, had for some fifteen or more years been suffering from various symptoms of hysteria, loss of voice, sleeplessness, &c. After marriage, in May last, her general health improved so that she could discontinue the

various hypnotics to which she had been accustomed. About the beginning of November she consulted Dr. Nieuwhondt for a small tumour, which she took to be a rupture. There was no pain, no bearing down ; menses regular, normal. On examination a tumour was found, feeling superficially about the size of a fowl's egg, just above the symphysis pubis, and lying entirely to the right of the middle line, firm, defined, rather fixed, with the abdominal wall movable over it. A vaginal examination was not permitted till a month later. In the interval she had her normal menses, but those due in the beginning of December had not appeared. No morning sickness, mammae slightly fuller, slightly tender, no areola marked ; the tumour more to the middle line, more movable, extended about two inches above the symphysis pubis, feeling very much like the firmly contracted uterus after expulsion of the placenta after labour. On vaginal examination the os was found lying only about half an inch from the external parts and the body retroverted. In the left fornix a hard body, not tender to pressure, distinct from the body of the uterus and from the abdominal tumour. Os and body of uterus firm. On account of possibility of pregnancy being super-added, the sound was not introduced. In the beginning of January the menses again made their appearance.

On January 5 Dr. Roux, of Malmesbury, Mrs. K.'s former medical attendant, met Dr. Nieuwhondt in consultation. Still no morning sickness, nor any other symptoms of pregnancy, except a little bearing down on exertion, breasts still full and tender, but no areola marked. Tumour up to the umbilicus more movable than before, but still quite firm. Os uteri soft and tilted to a level with the symphysis pubis, the body enlarged, softer, retroverted. Uterus seemed distinct from the abdominal tumour, still they moved together. Also two small bodies were now detected in the posterior and in the right fornix, but they could not be distinctly defined or made out. Introduction of sound showed the body of the uterus completely retroverted, and $3\frac{1}{2}$ inches passed in readily.

I saw the patient for the first time on the 10th in consultation with Drs. Nieuwhondt and Roux, and have from them the foregoing particulars.

I found an elastic, pretty even tumour above the pubis, reaching to a little above the umbilicus, extending on both sides of the linea alba, but a little more to the right, yielding, as I thought, a distinct feeling of fluctuation as I laid the ulnar edge of my hand along the linea alba whilst Dr. Roux percussed the tumour. Os uteri soft, and so pressed against the symph. pubis that it would have been impossible to introduce the sound. Body retroflexed, rather enlarged. On both sides (r.l. fornix) the finger encountered firm resistance, and obscure fluctuation was felt as the abdominal tumour was percussed with the other hand.

Being satisfied that this was a case for abdominal section, whether the tumour was an ovarian cyst—which, especially from its rapid growth, seemed all but certain—or not, it was decided to operate, and accordingly on the 14th, at the request of my colleagues and with their assistance, I proceeded to do so, the patient having been chloroformed.

The tumour being exposed, it was at once seen that we had to do with a fibrous tumour. Opening the capsule, I found that I could easily separate it from the tumour as far as the finger could reach, so enlarging the abdominal incision both ways I managed to enucleate and remove it, and as there was rather smart bleeding, ligatured the capsule as near as possible to the uterus and cut off its distal part. This done, I found that the pelvis was filled with a multitude of smaller tumours, the retroverted uterus being buried beneath them. Without much difficulty one after the other was removed, the capsule of some only requiring to be treated as that of the first was, until I came on something which evidently contained fluid and felt like the distended bladder. The catheter, however, soon proved this not to be the case. Thinking it might be an ovarian or par-ovarian cyst, and leaving it to be dealt with afterwards, I attacked the only other remaining tumour, which overlapped it more or less,

and was situated over the origin of the left Fallopian tube, and incorporated with the substance of the uterus. This was the most ticklish part of the operation, and could only be done with curved scissors, and I had all but separated it when up welled a large quantity of dark fluid blood. I had cut into the fluctuating swelling, which was adherent to this tumour, and proved to be a foetal sac, for with the blood an ovum about $1\frac{1}{2}$ inch long escaped. The bleeding, which was pretty free, was controlled by a strong silk ligature, introduced by means of an aneurism needle, and the sac beyond the ligature with the placenta removed. The rest of the last fibrous tumour was then removed, and after all oozing of blood had been stopped, and the parts well sponged with a solution of corrosive sublimate, the abdominal wound was closed.

Shortly after the patient woke and asked for some soup, as she felt very weak, she said. A little brandy-and-water was given, and she was put to bed, where she at first seemed pretty comfortable, but asked repeatedly for something to drink. Teaspoonfuls of milk-and-water with a little brandy were given, and gradually she fell into a slumber. A dose of liq. morphiaë had been administered after the operation, from which she never woke, and died about $2\frac{1}{2}$ hours after the completion of the operation, which had lasted a little over two hours, during the greater part of which the patient was only just enough under the influence of chloroform to render her insensible to pain.

This case affords another illustration of what Robert Barnes says of 'extra-uterine gestation being one of the penalties a woman having fibroid tumours in the uterus may incur if she marries,' for there can be no doubt that at least the largest of the tumours, which is perfectly solid and hard, and whose long diameter measures 6 and its transverse $4\frac{1}{2}$ inches, existed before the patient married, although there were never any symptoms indicating its existence, and that its apparent rapid growth was, at least principally, due to the growth of the foetal sac, which lifted it out of the pelvis in proportion to its growth, and to the development of the other smaller

and already existing tumours, by the new life imparted to them. The fluctuation which I perceived, was it caused by the fluid contained in the foetal sac ?

It is to be regretted that in this interesting case, which might have been so instructive for many reasons, no post-mortem could be held.

DIMENSIONS OF THE TUMOURS KINDLY FURNISHED BY DR. NIEUWHONDT.

No. 1. Long diameter, 6 in. ; transverse, $4\frac{1}{2}$ in. ; circumference (round transverse diameter) 14 in.

Nos. 2 and 3. Long diameter, 2 in. ; transverse, $1\frac{1}{2}$ in.

Nos. 4 and 5. Long diameter, 1 in. ; transverse, $\frac{3}{4}$ in. or more.

No. 6. Round diameter, $\frac{1}{2}$ in.

No. 7. Mass of tissue studded with tumours, 3 or 4 of which can be distinctly felt (No. 6 was one of them).

Age of foetus, about two months or more.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, OCTOBER 12, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT : 24 Fellows, 2 Visitors.

The following were elected Fellows of the Society :—
Dr. G. H. Balleray ; Dr. H. F. Marley ; Dr. T. J. Hitchins ;
Dr. J. St. Clair Boyd.

The following were proposed for election :—Dr. James Oliver, London ; Dr. William A. Bowen, Rangoon, Burmah ; Dr. Dickson Jones, Brooklyn, U.S.A. ; Dr. Joseph Price, Philadelphia ; Dr. Daniel Mowat, London ; Dr. Thomas K. Clarke, Huddersfield ; Dr. E. A. Spilsbury, Toronto ; Dr. Thomas Ovens, Ontario ; Dr. George A. Hetherington, St. John's, Canada ; Dr. George A. Rae, Devonport ; Dr. T. Readman, Driffield, Yorkshire.

The PRESIDENT then read Her Majesty's gracious acceptance of the humble address forwarded to her by the British Gynæcological Society, on the attainment of her Jubilee :

Whitehall, July 27, 1887.

SIR,—I have had the honour to lay before the Queen the loyal and dutiful address of the Fellows of the British Gynæcological Society, on the occasion of Her Majesty attaining the fiftieth year of Her reign ; and I have to inform you, that Her Majesty was pleased to receive the same very graciously.

I have the honour to be, Sir, your obedient Servant,

HENRY MATTHEWS.

Dr. BARNES exhibited a small dermoid cyst which he had removed a month ago. One reason for showing it was to

emphasise a caution he had several times had occasion to urge against the routine resort to massage. He had known at least one case in which a fatal issue occurred from injudicious massage in abdominal disease. The lady from whom Dr. Barnes removed this tumour was about 50 years old. She had suffered intense pain in the pelvis for several years, disabling her from active life and exhausting her strength. She came under his observation in June, 1886. There was a tumour the size of a Tangerine orange in Douglas's pouch, moveable, firm. The uterus was of normal size; its position and differentiation from the tumour were determined by the sound. In concurrence with her physician, Dr. Willoughby, I advised removal of the tumour. But, under other advice, she went through a course of massage. Of course this did no good. Returning to my care, I removed the tumour. She has done perfectly well.

Dr. HEYWOOD SMITH said he also was about to remark upon the amount of pain in the case referred to by Dr. Barnes, with regard to the size of the tumour, a condition that was frequent, standing in relation, as it did, to the tumour pressing on the contiguous nerves, whereas a tumour that rose into the abdomen generally caused but little pain. The amount of pain in these cases had to be taken into consideration in giving an opinion as to the advisability of operating, and we must be prepared, after putting fairly before our patients the pros and cons of the case, also to advise them as to the proper course to be pursued.

Mr. LAWSON TAIT said the specimen shown by Dr. Barnes was one of a small group of cases which were very mysterious, and certainly some reasonable explanation must be offered as to the intense pain to which these small dermoid tumours gave rise. He (Mr. Tait) had removed a great many, and it was an extremely difficult thing to diagnose between them and disease of the tube. A curious illustration of the difficulties of diagnosis, which increased experience impressed upon him, was shown in a small group of cases

which had been in the Birmingham Hospital for Women a week or two ago.

The first was a case in which there was a pelvic tumour, with very distressing symptoms, and differences of opinion occurred as to whether it was a myoma or a pyosalpinx, the latter being the view which Mr. Tait held. The second was a case in which he diagnosed a pyosalpinx. In the first instance he turned out to be perfectly correct, for the patient had double pyosalpinx, and the two tubes contained about three pints of pus. In the second he was wrong, for it was a small dermoid tumour exactly like that displayed by Dr. Barnes. The third case was one in which the diagnosis was made of double pyosalpinx, but a gentleman who happened to be present—no less than Dr. Apostoli—expressed the view that it was a case of myoma, for which he would use the electrolytic treatment. On the operation coming to be performed by one of Mr. Tait's colleagues, the diagnosis of pyosalpinx proved perfectly correct. Perfect accuracy of diagnosis in pelvic troubles was not possible in the most skilled and experienced hands.

Concerning the proper treatment for such cases as that displayed by Dr. Barnes, he (Mr. Tait) was in no way adverse to any reasonable employment of any other kind of treatment previous to the operation being performed, unless there were reasons to believe that delay would involve risk of life, and in many of the cases there were clear indications of this possibility. As for massage, he had operated upon a large number of cases of pyosalpinx and other diseases of the appendages which had been previously dealt with by the massage treatment, and the only objection to that was that it never seemed to leave the patients anything with which they could afford to pay a fee for an operation.

Dr. BARNES said in reply to Dr. H. Smith's question as to the position of the tumour, whether central or lateral, it was exactly central behind the uterus. Dr. Barnes believed he was the first to describe the greater depth of Douglas's pouch on the left side. In young women, and in healthy conditions,

it dipped considerably lower on the left than on the right, so that fluids and small bodies naturally gravitated more to the left. But in elderly women, and in those in whom a small body had occupied the pouch for some time, it was often found that the pouch expanded so as to be equal on both sides. Such was the case in this instance.

Upon the general question when to operate in similar cases, he could not enter at length; but the expediency of early operation could not be determined by the size of the tumour. A small tumour lodged in the pelvis, pressing upon bladder, rectum, and other pelvic structures, was commonly far more painful than larger tumours which had risen into the abdomen, and its removal might be quite as imperative.

The PRESIDENT said he was able to confirm the observations of the various speakers as to the pain which accompanied these small dermoid tumours, and which seemed to be in inverse proportion to the size of the tumour. According to his experience the greatest pain attended the small tumours—of a size similar to that presented by Dr. Barnes.

With regard to the question propounded by Dr. Heywood Smith he did not think any good could come from an attempt to lay down a general rule for guidance as to the time for operating on small tumours or swellings in the pelvis. If we could always be certain of the nature of the swelling it would be a simple matter. All hinged on the diagnosis. He was of opinion that if a case resisted a reasonable amount of rational treatment, of which rest was the most important item, without any amelioration of symptoms, then few would be found to contest the advisability of performing abdominal section. Beyond that he did not think we could go in the present state of things.

Dr. MANSELL-MOULLIN exhibited a hæmato-salpinx which he had removed from a young married woman, aged 25. She had had one child two years previously. In the recent state the tumour was about the size of an egg, constricted in the middle and filled with old blood-clot. The

chief symptom had been a constant aching pain in the lower part of the back and around the pelvis, from which the patient was unable to obtain relief in any position, sitting or lying. The pain was also much increased on defæcation. The ovary attached was apparently healthy and the appendages on the opposite side were seemingly healthy and allowed to remain. Numerous adhesions were broken down but no drainage tube had been required. The patient had made a very fair convalescence and was now free from pain.

Mr. TAIT said, concerning Dr. Mansell-Moullin's preparations, he might say he had just been reading an astounding paper by Mr. Burton, of Liverpool, who, he believed, was one of the members of the Council of the British Gynæcological Society, in which he asserted that such cases as that belonging to the preparation exhibited by Dr. Mansell-Moullin ought under no circumstances to be touched. Such an expression of opinion was worthy of the dark ages. Why should a woman with the symptoms described by Dr. Moullin be obliged to go on living the life of an invalid, with a perfectly useless organ inside her, an organ irretrievably damaged, which never could by any possibility resume its original functions, any more than a woman who had a cataract in her eye be prevented from having her sight restored by removal of the useless lens? Mr. Burton asserted that under no circumstances ought hæmatocele to be dealt with. He (Mr. Tait) had purposed to speak to-night of three cases of ruptured tubal pregnancy which he had operated upon lately, and where the patients' lives were in the most imminent danger from recurrent intraperitoneal hæmorrhage. He had opened the abdomen and tied the bleeding-point—that was the broad ligament—and he could not understand anyone having any other view than that such a proceeding was the right one. Therefore he proposed to ask Mr. Burton to appear at the next meeting of the Gynæcological Society, when he (Mr. Tait) would narrate all the details of these three cases, in order that we might get an authoritative opinion from the Society as to the righteousness or otherwise of the operation.

Dr. BEDFORD FENWICK wished to ask Dr. Mansell-Moullin whether in this case there was any marked increase in the quantity lost at the menstrual periods during the course of the illness. Mr. Lawson Tait had clearly proved that menorrhagia was one of the cardinal features in the diagnosis and history of tubal disease in the form of pyosalpinx. It would therefore be interesting to know this same symptom was present in the case just narrated. Dr. Fenwick considered it was only fair to add that he had seen the operation, and though Dr. Mansell-Moullin, with characteristic modesty, had made little of its difficulties, the case was really one of the most unpromising and complicated which he had ever seen. When he mentioned that the ovary was literally imbedded in old organised lymph effusion, and everything in the neighbourhood surrounded by firm adhesions, every one present would understand the skill and patience which it required to enucleate the specimen exhibited, without rupturing the swollen tube or causing profuse hæmorrhage.

Case of Pseudo-Hydramnios. By J. ST. CLAIR BOYD, M.D.

In adopting the name pseudo-hydramnios to describe this case of excessive fluid in the amnion, it is with the object of directing attention to the source of the fluid, the superabundance of which did not, as in ordinary cases of hydramnios, take origin in the membranes, but had its source in a hydrocephalic head, from an aperture in which it flowed.

Mrs. Mary Phillips, Burton-on-Trent, aged 42. Patient thought she was pregnant, but when her medical attendant was summoned to see her, her enormous size seemed to him inconsistent with that view, and he forwarded her to Mr. Lawson Tait, who admitted her to the Birmingham and Midland Hospital for Women on June 30. She states that she has had six children, no abortions, and that at her last three labours instruments were used. She has not menstruated since November 24 last.

Mr. Lawson Tait saw her on the morning of her admis-

sion, at ten o'clock, and found her suffering from enormous abdominal distension, dyspnoea and dropsical effusion in the lower extremities; on vaginal examination he found the os uteri dilated about the size of a crown-piece and a bag of membranes protruding from it. He proceeded to rupture the membranes, when a gush of fluid took place deluging the bed and the floor of the ward; of which fluid fourteen pints were sponged up and measured. Mr. Lawson Tait informs me that I would be justified in estimating the total quantity at thirty pints. Mr. Tait now left the patient, who had experienced great relief from the flow of fluid, and called on me to take charge of the case for him.

On arriving at the hospital, 12.30 P.M., I found the patient very comfortable, although the abdominal distension was still very great; on testing the urine it proved free from albumen. On vaginal examination the os uteri was only dilated to about the size of a florin, and, as no labour pains had come on, I decided to leave the case for a few hours, having instructed the nurse to send for me if necessary. On my return at 4 P.M., I found the patient had slight labour pains at intervals of about ten minutes, and that the os was dilated to the size of a crown-piece. The presentation was difficult to make out owing to a deficiency of certain head bones; however, I considered it must be a head, or, failing that, an abdomen; a medical friend who called at the hospital took the latter view, and accounted for the absence of the cord by the theory that the part was still covered by a bag of membranes which prevented its being felt. On examining later, after further dilatation of the os had occurred, I concluded it was the head, the first part of which I positively recognised was the nasal promontory; the identity of this was for a long time obscured by the deficiency of the bony supra-orbital arches. The position of the nasal bones high up and anteriorly pointed to the fact that the presentation was an occipito-posterior one; it was then about 7.30 P.M., and I decided not to interfere, so as to delay the case and give the over-distended uterus more time to contract, also with the expectation that spontaneous

rotation might occur. At 10 P.M. I made an attempt to assist rotation by pressing upwards the sinciput ; as this failed I next tried, by means of the vectis, to assist the descent of the occiput, this proved successful and rotation followed. After rotation had taken place I did not again interfere until 12.30 A.M., when the pains although increased in intensity, occurred at much longer intervals. I now used the short forceps as the head was pressing on the perinæum and making no perceptible progress. The child was still-born and the uterine contractions, after its expulsion, were not attended by any pain ; this absence of pain during the third stage had occurred in all her previous labours. After the birth of the child, ʒjss. extr. ergot. liq., B.P., was administered and I kept the uterus under my hand ; at the end of half an hour, as there was no sign of hæmorrhage or of expulsion of the placenta, I passed my hand into the uterus and found the placenta so firmly adherent that I was unable to differentiate its edge from the adjacent uterine wall. A ʒi. dose of ergot was now administered and twenty minutes later some hæmorrhage occurred ; I then determined to remove the adherent placenta which, owing to its strong adhesions, was very difficult of accomplishment ; after its removal I injected a hot solution of hydrarg. perchlor. (1 in 2,000) with the double object of restraining hæmorrhage and preventing septic absorption from any remaining shreds of placenta. I left the patient at 2 A.M., the uterus being firmly contracted, and having administered another ʒi. dose of ergot. In this case, in spite of those predisposing causes of hæmorrhage, an over-distended uterus, and an adherent placenta, by patience and careful manual control of the uterus, during and for some time after the conclusion of the third stage of labour, it concluded with the loss of little more than a pint of blood. On the third day after delivery all trace of the dropsical effusion had disappeared from the patient's lower extremities.

The child has an enormous hydrocephalic head, and from the mother's history of seven months' amenorrhœa, together with its state of development, it appears to have been born

at the seventh month. The patient describes her husband and three of her children as having very long heads. The child's head, which is enormously distended and from which fluid continued to ooze for several hours after birth, presents very imperfect ossification of the frontal bone, the nasal and occipital eminences are well marked and ossified, the parietals are also ossified ; the ears, which are so low down as to seem to be in the neck, have a large soft bulging area above each, which area corresponds to the squamous portion of the temporal bone, and in it cartilaginous laminae can be felt. The fluid apparently exuded below the occipital eminence, at which part the skin has now become wrinkled owing to its escape.

Dr. AVELING thought Mr. Lawson Tait's theory as to the source of the fluid probably correct, for he had seen cicatrices on the surface of a hydrencephalocoele which proved that these cysts ruptured *in utero* and discharged their contents.

The PRESIDENT remarked that he was unable to draw upon his experience for more than one case of this disease. That was a case on which he had operated just before leaving for America. He hoped to lay the specimen before the Society at an early period, with a report by Mr. Bland Sutton. For the present he would only observe that while, in some cases, the fault seemed to lie on the foetal side, in his case he thought the evidence would show that it lay on the maternal side, as indicated by the condition of the uterus. In his case there were twins, yet the disease affected only one of the amniotic sacs.

Dr. BARNES observed that the source of the apparent hydramnios from escape of fluid from a hydrocephalic condition was very remarkable, if not unique. The adhesion of the placenta suggested the probability of inflammation of the membranes of the placenta as a cause.

Dr. BEDFORD FENWICK said the case reminded him of one he saw when he was Resident Accoucheur at the London Hospital. He was called out one night by a Maternity assistant who met him outside the patient's room, and with a

face blanched with surprise and fear told him the case was a most extraordinary one, that when he (the Maternity assistant) arrived, he found the os well dilated and the membranes tense and presenting, that he had ruptured these and an enormous quantity of water had come away. But that after waiting some time he had examined again and found another bag of membranes coming down. Hurriedly leaving he had consulted Swain's 'Aphorisms' under a street lamp, and obtaining no consolation or help therefrom he sent for Dr. Fenwick. On examination there was a tense bag of membrane pressing down on the perinæum, but the finger passed up the vagina from these on to cephalic bones, immovably fixed in the pelvis. The point of a hair-pin punctured the cyst and an enormous quantity of fluid escaped, and the use of the forceps quickly finished the delivery. The placenta was very adherent and had to be most carefully peeled off, and the child was typically hydrocephalic. It was, therefore, evidently a case of hydramnios with the same cerebral membrane disease as in Mr. Lawson Tait's. If it were not for the distinct fistula Mr. Tait had described of course the child's head might have been punctured with and through the uterine membranes, and then the case would have been much simpler and exactly on a par with the one Dr. Fenwick had narrated.

Case of Monstrosity. By Dr. CORDES, of Geneva.

On May 25, 1887, at 5 P.M., I was called to *la miséricorde* maternity, for a baby just born, presenting the following monstrosities :—

The cranial vault is represented by a fibrous membrane, which becomes tense when the child cries or makes any effort, and on the sides of which run large veins, swelling whenever the child cries.

On the left side, in the middle of the partially absent parietal bone, through an opening as large as a five-shilling-piece, the cerebral substance burst out, covered only by the arachnoid and the pia-mater. The dura-mater is perforated ;

through the membranes one may see the gray substance of the brain. Some blood flows from the tumour.

A light and prudent taxis fails to replace the tumour, and does not seem to affect the child in any way ; except this, and the malformation of the fingers and toes, which I shall describe under the head '*Post-mortem*,' the child is well formed.

The mother, a two-para, says she has seen, in the beginning of her pregnancy, a woman without hands, but she was not struck by it. (On the influence of malcreation, see Darwin, '*Variation des Animaux et des Plantes*,' 1868, t. I., p. 280.)

The head midwife, who attended her, thought everything going so naturally that she did not speak about the case when I was going round, one hour before. She noticed only that the membranes were tough, and ruptured late.

Treatment.—Slight compression with cotton-wool soaked in carbolised water $\frac{1}{100}$.

The monster still living on the 27th, I called in Dr. V. Gautier, who advised to dress the tumour with perchloride of iron and water, on account of some oozing of blood.

On the 30th, the fibrous membrane is black, dry, and seems to undergo dry gangrene. The opening has enlarged ; the tumour is black, and has a smell of putridity. To be dressed with carbolised oil $\frac{1}{20}$.

On June 1 the child is taken with general convulsions, and dies in the morning of the 2nd.

Post-mortem, June 3rd. Professor W. Zahn. Length of the body, 50 centimètres ; circumference of the head, 25 centimètres. Body emaciated.

Head.—On the left side, near the median line, opening 40 millimètres in diameter. Brain uncovered, hyperæmic ; laterally coloured black, green, and yellow ; on the sides it seems gangrened. No meningæ on it. On the right side, and posteriorly, no skin ; the scalp stops on the level of the frontal bones, going backwards till 30 millimètres from the right ear ; then going transversely till 30 millimètres from the

left ear ; then goes to limitate the anterior lateral border of the opening. The scalp is absent on a part of the occipital ; the cranial vault is formed by a dry membrane, red-brown (this may be from the application of perchloride of iron). Dark hair on the scalp, till the forehead ; laterally the hair joins the eyebrow. Nothing abnormal in the face, mouth, tongue, maxillary bones, abdomen, umbilical cord (this still adhering), penis, testicles. The frontal bone is not as completely developed as the left. The frontal suture is rather large. The anterior third of the right parietal bone is the only one developed ; on the left, the posterior part is absent. The gangrened soft parts are formed by the membranous parts of the cranium and dura-mater. Incomplete cranioschisis. Outside of the dura-mater, some blood effused. No abnormal inclination of the basilar part of the occipital. Cranial nerves normal. The gaping of the bones measures, from the frontal bone to the occipital, 10 centimètres ; between the parietal bone, 6 centimètres. Dura-mater very much hyperæmic. In the left anterior and median fossæ, some pus.

Liver.—Near the suspensory ligament, 6 millimètres above the inferior border, a whitish spot, 8 millimètres large, in the place where is generally the ‘Kysts à cils vibratiles’ of Zahn :—

Liver : Breadth, 115 millimètres ; right lobe, 85 millimètres.

Greatest thickness	.	right	„	50	„
„	„	.	left	„	30
Height	.	.	right	„	85
„	.	.	left	„	62

Then, some considerations about the whitish spot, which have nothing to do with the monstrosity, but with Zahn’s researches on the ‘Kystevibratile.’

Lungs, spleen, kidneys, normal.

Heart contracted, two points (apex ?) well marked.

Brain.—Superior part of the left lobe very soft (diffluent), torn. The anterior horn has no walls. Lateral ventricles not enlarged. Acute meningitis in the left hemisphere, the

cerebellum, and the basis of the right hemisphere. Pus in the ventricles ; choroid plexuses very hyperæmic.

In the *medullar canal*, between the dura-mater and the periosteum, some blood, liquid above, clotted below. The dura-mater is soaked with blood. Spinal purulent meningitis backwards, specially in the lumbar region.

Medulla diffluent ; to be placed in Erlicki's fluid.

On the *left foot*, the toes are incompletely separated, and very short syndactyly. Phalangæ formed ; nails just indicated.

On the *right foot*, the same ; but the small toe only has a nail, the others none.

Right hand.—Thumb rather large, nail badly developed. The index has only one phalang ; the small finger has two only.

Left hand.—No thumb ; the other fingers are represented by small warty excrescences 1 millimètre long. The medius and ring fingers are only two brown spots, hard, which seem to be nails. No appendix of the kind in the place of the little finger.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, OCTOBER 26, 1887.

GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT, IN
THE CHAIR.

PRESENT: 32 Fellows, 12 Visitors.

The following were elected Fellows of the Society :—Dr. Oliver, Dr. W. A. Bowen, Dr. D. Jones, Dr. J. Price, Dr. D. Mowat, Dr. Clarke, Dr. Spilsbury, Dr. Ovens, Dr. Hetherington, Dr. G. A. Rae, Dr. T. Readman.

The following gentleman was proposed for election :—Dr. Sinclair Smith.

Dr. EDIS exhibited the cervix uteri removed from a patient aged 54. The interest of the case consisted in the fact of a growth appearing in the posterior lip of the cervix, circumscribed, nodular, hard, bleeding readily when touched with the finger, so closely simulating the early commencement of epithelioma that it was only after microscopical examination of a section that a reliable diagnosis could be arrived at.

The patient, aged 54, had borne three children. The catamenia had ceased nearly a twelvemonth. She complained merely of backache, weariness, and general depression. There was a more or less constant vaginal discharge, but not of any undue amount, nor had there been any hæmorrhage.

Preliminary attempts to reduce the bulk, lessen the congestion and allay symptoms were first made, but the mere doubt as regards the diagnosis so distressed the patient, she decided that in any case she would prefer having it removed. This was done by means of the ecraseur after making an in-

cision all round the cervix, just below the junction with the vagina, and then exercising some traction so as to get as much of the cervix away as possible.

The patient convalesced without any secondary hæmorrhage or other untoward symptoms occurring.

On submitting the specimen to Mr. J. Bland Sutton, he reported as follows :—‘In no point of it can I find the least evidence of malignancy. The morbid changes are entirely confined to the superficial portion of the nodule, and consist of a multitude of closely packed granulation cells, such as always exist at the base of an ulcer. In no part of the specimen can the least evidence of epithelial ingrowth be detected, but plenty of evidence of superficial ulceration. Microscopically there is nothing indicative of epithelioma. The bulk of the nodule is made up of wavy bands of fibroid tissue, full of young and ill-formed blood-vessels.’

Remarks.—The early diagnosis of epithelioma being of such great importance as regards the radical treatment, I thought the present specimen well worthy the attention of the Society. The fact of the cervix bleeding readily upon touch, which in my experience has hitherto proved a most reliable symptom of commencing epithelioma, in this case proved untrustworthy. I am bound to say that, although I accept the pathological and microscopical evidence of Mr. Sutton as thoroughly reliable and trustworthy, I have not always found the clinical history bear out the microscopical prognosis. It may be that there is a stage when it is impossible to pronounce what is the true nature of the growth, this stage rapidly passing on to one in which the evidence of malignancy is undoubted.

Dr. MANSELL-MOULLIN said the point raised by Dr. Edis was one of immense practical importance. The difficulty of distinguishing incipient epithelioma from a mere granular condition was one that was constantly arising. Hæmorrhage on touching the diseased surface was by far the most important symptom, but it was not absolutely pathognomonic of malignancy. He had met with a soft granular cervix in a

young woman aged 20, which bled so freely after examination that it was necessary to plug the vagina. The condition improved under treatment, and subsequent observation proved the non-malignant character of the case. The age of the patient raised a doubt, but he had met cases of malignant disease quite as early.

Dr. HEYWOOD SMITH asked whether there was not retroflexion of the uterus in the case that Dr. Edis had brought forward, as the condition he had described was that which very frequently obtained in such cases, viz. chronic inflammation of the posterior lip followed by an indurated deposit (areolar hyperplasia) and subsequent granular disease.

He also wished to draw attention to an expression which both Dr. Edis and Mr. Bland Sutton had used, *ulceration* of the cervix. He thought the Society should distinctly state the difference between true ulceration and that condition which was more correctly described as abrasion or, as the nomenclature of the College of Physicians has it, granular inflammation of the cervix uteri. Ulceration is a condition that is the same whether it is situated outside the body or on an organ partly inside it as the cervix uteri, namely, a distinct excavation of tissue with defined edges, having its surface below that of the surrounding tissue, whereas the condition before the Society was of granulations more or less coarse, elevated above the contiguous surface, and palpable to the touch as a somewhat raised velvety surface. True ulceration of the cervix uteri apart from malignant disease is extremely rare; not so is granular disease superimposed on an indurated base. He was glad to hear Mr. Sutton state the not unfrequent progress of that condition, that under the stimulus of irritation it might degenerate into epithelioma of the cervix, and therefore the necessity of treating it by destructive caustics, and so arresting its course and preventing it passing into the malignant state. He thought the Society ought, by strong representation, to discourage the indiscriminate and erroneous use of the term 'ulceration of the womb.'

Dr. BEDFORD FENWICK said :—There are several very practical points which seem to arise out of the interesting case just shown by Dr. Edis. Firstly, as to bleeding after the menopause being a pathognomonic sign of the presence of malignant disease. I hold that to be quite untenable. Hæmorrhage from the vagina may arise from chronic or acute congestion of the canal itself or the cervix, from perfectly simple vascular growths, or, as in a case I saw this week in a woman aged about 60, from a polypoid growth within the cervical canal. This patient came complaining of bleeding after walking, and after coitus, her husband, I may say, being much younger than herself. In text-books and in this discussion this sign has been held to be most suspicious of the existence of cancerous mischief, so it is an instructive case to remember. Secondly, I can confirm clinically, from my own observation, what Mr. Sutton has conceived may occur pathologically. For I have watched cases, both at the London Hospital and at the Hospital for Women, who came first under treatment for extensive granular erosion of the cervix, which condition resisted treatment of all kinds, and in the course of months or years the patient returned showing a well-marked condition of malignant ulceration and outgrowth. Thirdly, I would venture to echo Dr. Heywood Smith's wish that this Society should give an authoritative and definite definition and name to the disease variously termed ulceration, erosion, or granular disease of the cervix uteri.

Dr. EDIS, in reply to the different speakers, said :—The cervix could hardly be spoken of as lacerated, the rim of the cervix was entire, and there was no eversion. There was no history of syphilis, nor any evidence whatever of such a condition. The uterus was retroflexed, and there was a distinct history of previous ulceration.

Note on a Case of successful Ovariectomy in a Patient 75 years of age. By E. J. DAVIES, M.D. Edin., Senior Assistant Surgeon to the Hospital for Women, Liverpool.

The chief interest which attaches to this specimen is the extreme age of the patient from whom I removed it on September 17 last, at the Liverpool Hospital for Women. Her age is 75 years, and so far as I have been able to ascertain she is the oldest on record who has survived the operation of ovariectomy. I have carefully searched through the statistics of all the leading operators in this country, as well as American and Continental, and I find the oldest patient operated upon successfully was one by Dr. Thomas Keith whose age was 73 years, and the next is one at 70 years who was operated upon by Sir Spencer Wells. He did operate, however, on one whose age was 77 years, but she sank on the sixth day from exhaustion. The tumour filled the abdomen almost completely and was universally adherent to the anterior parietal peritoneum, so much so, that I experienced considerable difficulty in differentiating between the cyst wall and the peritoneum during the operation. The patient was subject to recurrent attacks of patchy peritonitis over the front of the tumour, which gave rise to considerable constitutional disturbance, as was evidenced by acute pain with sudden rises of both temperature and pulse, and friction was audible and palpable over portions of the abdominal wall, and it was these urgent symptoms, after consultation with my colleagues, which prompted me to operate without delay. The cyst was monolocular, with dark portery fluid contents, and as you will notice it has a small solid mass at its base. The adhesions were not dense and the cyst was easily stripped from its connections with the peritoneum, there were no adhesions to bowel or omentum. A two-inch incision through the abdominal wall was made in the first instance, which had to be subsequently enlarged another quarter of an inch or so to permit of the delivery of the solid portion. I hand round for your

inspection this chart and you will observe there was not one single departure from the normal in any particular whatsoever. The catheter was not once passed after the operation and the patient was allowed to roll about in bed just as she liked and to eat anything she fancied. A dose of Epsom salts was administered on the third day. The wound was not disturbed for a week, when the stitches were removed and it was found to have healed by first intention. No morphia was given after the operation as is customary—a practice I would deprecate unless there be some special need for it, to allay pain or restlessness. It constipates the bowels and creates distention. It would thus seem from this case that, the shock of the operation having been recovered from, the prognosis in the case of an old woman otherwise healthy is as good as, if not better than, in instances of the same disease met with in the middle period of life. My patient now enjoys perfect health.

Dr. FANCOURT BARNES said Dr. Davies' case was of interest as raising the question of the treatment of old people after ovariectomy. Dr. Fancourt Barnes had found that the chief danger was that of bed sores. Aged women were particularly susceptible to this. In two cases where he had removed ovarian cysts from women over 65 years of age, this had been the chief point to attend to during convalescence. His plan was to have the patient moved from time to time, first on one side and then on the other, instead of keeping her flat on her back all the time. Apart from the danger from bed sores he knew no reason why the aged should not recover as readily as the young or middle aged.

Dr. HEYWOOD SMITH said, After the remarks of Dr. Fancourt Barnes on bed sores, he would like to ask whether it was not the usual practice to place cases of ovariectomy on water beds, so as to obviate the occurrence of such sores. And while referring to water beds he wished to draw attention to the mistake often made (directed even by the makers of such beds) as to the way they were to be filled. They were directed to be so filled as to have a portion of water

with a layer more or less thick of air. This not only produced an unpleasant gurgling but it rendered the bed harder than it ought to be, as it converted the water bed into an air bed. The proper way of filling them was to squeeze them quite flat, to fill them about half or two-thirds full of water, excluding every particle of air; the patient would then lie on a surface as it were of water, whose hydrostatic pressure was equal in all directions, a condition which would entirely obviate any undue pressure on any spot and so be a safeguard against bed sores.

Dr. A. E. BARRETT said, As the use of water beds has incidentally come under discussion I should like to know if others have met with any cases, such as have come under my observation, of serious and even fatal results ensuing from the large body of water abstracting the caloric and lowering the temperature of the patient. I should be glad to hear the experience of other Fellows on this point and to know if any plan has been suggested for regulating the temperature.

Twelve Cases of Ruptured Tubal Pregnancy.

By LAWSON TAIT, F.R.C.S., M.D., &c.

In the columns of the 'British Medical Journal' I have already reported twenty-three cases of ruptured tubal pregnancy in which I performed abdominal sections and tied the bleeding point on account of hæmorrhage, which threatened life. All of these cases recovered with one exception, the first in which I operated. I have now to contribute a further group of twelve cases, in which there have been eleven recoveries and one death, as follows:—

CASE XXIV.

P. B., aged 24, married, sent to me by Dr. Price of Dudley Port, with a letter to the effect that he thought the case he had sent was very like one which I had just recently operated upon for him, and which proved to be tubal pregnancy. She had missed nearly three months and was suddenly attacked

by violent pain. I operated upon her on February 2, 1886, and found a belly full of clots and dark purple coloured serum, with a ruptured Fallopian pregnancy of about the twelfth or thirteenth week, the fœtus being found immediately alongside the tube on the placenta *in situ*. I washed the clots freely out, and put in a drainage tube. She made a somewhat difficult recovery, but went home on February 27 perfectly well. The diagnosis in this case had been made with perfect accuracy by Dr. Price before I saw her.

CASE XXV.

J. E., aged 35, married 18 years ; had suffered severe pain all her menstrual life, had one daughter very soon after her marriage. She thought she had had three miscarriages six or seven years before, but had no living child. She ceased to menstruate suddenly at the end of January 1886. She had no symptoms at all until the end of April, when a second attack of pain induced her to keep her bed. This pain continued for about ten days, and she had a feeling of great lassitude and exhaustion, and was noticed to be very pale. She recovered and got up, and about the middle of May another attack of a similar kind induced her to go to bed and call in Dr. Cunningham of Oldbury. A third and still more violent attack occurred on June 2. I saw her, diagnosed ruptured Fallopian pregnancy, operated on the 4th, and found a pregnancy of about the twelfth or thirteenth week, of the right Fallopian tube, and the abdomen full of clots and bloody serum. I washed it out with warm water, used a drainage tube, and she left the hospital on July 1 quite recovered.

CASE XXVI.

C. H., aged 32, married 14 years, nine children, supposed to have had a miscarriage at the end of April 1886, never well after, but she had something like a period after an attack of violent pain in the middle of May ; since then her life was completely burdensome, she suffered intense pelvic pain, and

was obliged to be most of her time in bed. On July 13 she had a severe attack of pain and collapse, after which I saw her and diagnosed ruptured tubal pregnancy. I operated on the 16th and found my diagnosis correct. The abdomen contained large quantities of clot and bloody serum. I washed it completely out with warm water, employed a drainage tube, and she left the hospital quite well on August 2.

CASE XXVII.

A. H., aged 34, married, was seen by me at the outpatient department on September 16, 1886. She was doubled up with pain in the lower abdomen and back which had been going on for some months. She thought she had a miscarriage in the beginning of July, she had a great loss of blood then which had been getting increasingly worse ever since. I found the cervix shortened and very soft, the uterus fixed and enlarged with a cystic mass to the left of the cervix, running above it and behind it. She was so exsanguine that she seemed to be in a momentary condition of fainting, and her skin seemed to be tinged with hæmoglobin, the whole of the abdomen was extremely tender. I had no hesitation in diagnosing ruptured tubal pregnancy, the diagnosis being verified at the operation. I found no fœtus, but pieces of the placenta loose in the abdomen and a large quantity of clots and bloody serum. She never seemed to completely rally from the operation and died on October 2, that is the fifth day. I could not obtain a *post-mortem* examination.

CASE XXVIII.

E. W., married, aged 44, married at 22 first time, had one child which only lived seven months, she was never well after, suffered from menstrual pain ; married a second time eleven years ago, no children, menstruation was always regular, profuse, and always accompanied by a great deal of pain. Eight years ago she suffered from what was called an attack of inflammation of the bowels, in bed for three months, her

health has been very bad ever since. A violent attack of pain came on suddenly on November 6, 1886, from which time she never left her bed, suffering intense pain, until I saw her early in January. She had not menstruated, but there had always been irregular hæmorrhagic discharges. She was under the care of Dr. Chime Clark as an out-patient. The whole of the roof of the pelvis was fixed, and no diagnosis could be arrived at. I made an exploratory incision on January 26, and found the abdomen full of clot and bloody serum, and a Fallopian pregnancy of about the third month, which I removed. I washed her out thoroughly, put in a drainage tube, and she went home perfectly well on February 13.

CASE XXIX.

Late on the evening of February 16, I received a telegram from Dr. Dolan, of Halifax, to proceed at once to that town, to operate upon a case which he believed to be one of ruptured tubal pregnancy. The following is the account which Dr. Dolan has given me:—‘P. W., aged 29, married, 4 children living, youngest 2 years old, had a miscarriage nine months ago, has always been regular, but missed the last period. Felt uneasy for the past few weeks; felt, she said, as if there was a weight, and as if the womb was coming down the passage; enjoyed good health up to this time. About 9.30 A.M., February 11, I was called to see her, and found her in a state of collapse. She revived, and then complained of pain in the abdomen, symptoms like those of colic, vomiting, abdomen distended, great flatus. This continued for some hours; was relieved by ether and champagne. She had several attacks during the day, and I saw her altogether seven times. At 10 P.M. same night she begged for something to give her sleep, and I gave her a dose of chloral, bromide of potash, and camphor water. She slept the whole night. A nurse had been obtained immediately after the first attack. On the morning of February 12 she was, to all appearances, perfectly well, was free from pain, and, as she said, she felt as if there was nothing the matter with her.

There was, however, a good deal of flatus, and the abdomen was distended. She told me she had gone to bed on the Thursday night perfectly well, but on rising in the morning, about 7 A.M., she felt a sudden pain about the umbilicus. When she got up she tried to work it off. I told her husband that I feared there was some internal hæmorrhage caused by rupture of tube, but as she was so much better I would wait and see whether I was right. She was kept in bed in charge of the nurse, and not allowed to move. This treatment was continued until the following Thursday. There was no return of pain or collapse, and she said she did not know why she was kept in bed. At midnight I was hurriedly summoned to see her. She had been out of bed for a short time, and almost the same symptoms came on—sickness, tendency to faint, cold sweats, with a sense of fulness in the abdomen. Her appearance was changed, face was blanched, the abdomen was distended, but there was no localised swelling. By rest she again revived. I told her husband that I was now certain as to what she was suffering from, and an operation would be required. He gave me permission to call in Mr. Lawson Tait, whom I telegraphed for as soon as I could.' On my arrival I completely agreed with Dr. Dolan's diagnosis, and I opened the abdomen without further delay, and removed an enormous quantity of clots and bloody serum, and débris. The tubal pregnancy was on the left side. I tied the broad ligament, removed the pregnancy, washed her out thoroughly, and put in a drainage tube. Dr. Dolan stayed with her all night, feeding from time to time with diluted champagne. She gradually rallied, there was but slight discharge from the tube, very little pain, the pulse came down day by day, and on February 25 she was regarded as convalescent, and is now in a condition of perfect health.

I left Halifax that night by a train which reached Birmingham at about eight on the morning of the 18th, and in an hour had to operate upon the following case of Dr. Hoare's. This formed one of the most remarkable coincidences that has ever occurred in my practice—two cases of ruptured

tubal pregnancy in twelve hours. In both of the cases the diagnosis was completely made by the practitioners in charge.

CASE XXX.

M. C., aged 31, married 11 years, had 2 children, the eldest 6 years old; was sent to me by Dr. Hoare, of Aston, with the following note:—‘A good deal of obscurity surrounds the early history of this case, on account of the unintentional self-deception of the patient, and the extreme reluctance she showed to confessing herself to be out of her usual state of health, a condition in which she persisted until pain and difficulty of micturition forced her to seek surgical aid to overcome the latter. The patient has had 2 children, without anything abnormal in the confinements or sequent convalescence. Her youngest child is nearly 2 years old. About two months ago I was called to attend her at intervals of malaise and recovery till three weeks ago. She complained then of general weakness, inability to get through her household work, and prostration. I felt sure she was pregnant, but the patient herself said she knew perfectly well she was not, almost resenting the suggestion. A day or two before you saw her with me I was again called in. This time she complained of severe pain and inability to make water. The passage per rectum was free and regular; on passing a catheter, only a few ounces of urine came away; on digital examination, a large doughy mass was felt in the recto-vaginal sac, which ultimately proved to be a tubal pregnancy.’ I saw her on the morning of the Thursday, diagnosed ruptured Fallopian pregnancy, with hæmorrhagic effusion into the abdominal cavity. She was removed into the hospital. I operated next morning, and found the abdomen full of clots and bloody serum, and a ruptured pregnancy of the ninth or tenth week of the right tube. I washed her out, put in a drainage tube, and the patient went home perfectly well on March 7.

CASE XXXI.

B. B., aged 29, married. When visiting at Monmouth I saw this patient in consultation with Dr. Prosser. He told me that she had been admitted to the Monmouth Hospital with severe pelvic symptoms. She had been ill for some weeks. I made an examination at Dr. Prosser's request, and said I was perfectly certain it was a case of a diseased tube. When I said that, he proposed she should be sent to Birmingham for operative treatment. She was so removed on April 27. After having quite satisfied myself that it was a case of tubal pregnancy, I operated and removed it. At least two ruptures had taken place, because there were layers of clots of two different dates, the first being quite bright and of recent origin. She recovered, and returned quite well on May 23.

CASE XXXII.

A. E., aged 30, married 18 months, sent to me by Dr. Gordon, of Walsall, never pregnant, had not missed any periods, her last period having occurred at the end of April. She was sent to me with a note to the effect that 'she had been confined to bed with pelvic troubles for about three months.' These symptoms increased in severity, until Dr. Gordon advised that she should be placed under my care, for an operation if necessary. I examined, and found a cyst on the right side of the uterus, extremely tender to touch, and the whole of the abdomen distended and tender, with threatening, if not already advanced, peritonitis. I admitted her to hospital, opened her abdomen on May 6, and found a tubal pregnancy on the right side, but the whole thing was so infiltrated with clots and rotten that nothing could be identified, except the stump of the broad ligament, to which the disintegrating masses of the remnants of the Fallopian tubes were attached. I washed her out and drained, and she left the hospital quite well on May 28.

CASE XXXIII.

E. S., aged 44, married, was seen by me in consultation with Mr. Lafarelle, of Coleshill, in July. Her youngest child was 9 years old. She menstruated quite regularly until the last two to three years. Her last period was in May; it then stopped for eight weeks, and returned suddenly with severe pain, from which pain she had never been free until I saw her in consultation in July. The condition she had been suffering from we both regarded as local peritonitis, the chief trouble being over the transverse colon. There was an increased night temperature and distension of colon, with sickness, which gave us both the impression that she was suffering from chronic colitis. I made a pelvic examination without discovering anything. She remained in a condition of invalidism until the last week in August, when Mr. Lafarelle discovered a pelvic tumour. He then asked me to see her, as it seemed to be growing very rapidly. I saw her on September 15, and found a large mass, not well defined, and yet clearly pediculated to the left side of the uterus. She was very exsanguine, abdomen greatly distended, and I hazarded an opinion that it was a rapidly-growing ovarian tumour, which had become rotated and gangrenous. I admitted her to my private hospital, and operated on the 17th, when, to my surprise, I found she had a ruptured tubal pregnancy, in which I found a fœtus of about the tenth week, which had clearly been dead for several weeks. The abdomen contained large quantities of clots and bloody serum of a much earlier date. I washed her out; used a drainage tube. She made an uninterrupted recovery, and went home on October 14.

CASE XXXIV.

G. F., aged 28, married eleven years, had four children, youngest five years old, periods ceased for twelve weeks about Whitsuntide, then she had severe flooding for eight weeks, the last of the discharge having been seen about the begin-

ning of September. She was extremely anæmic, everything in the pelvis was fixed, the abdomen was much distended, and she looked very ill. I saw her on September 19, and diagnosed a ruptured tubal pregnancy. I opened the abdomen next day, found large quantities of clots and bloody serum in it, and removed a ruptured tubal pregnancy of the right side. She made an uninterrupted recovery, and left the hospital on October 5 quite well.

CASE XXXV.

B., aged , married. On September 28 I got a letter from Dr. Williams, of Wrexham, asking me to go to that town to see a patient with him, who was supposed to have had a miscarriage in the summer, and she had looked upon herself as again pregnant, having had something like a period about the end of July. A fortnight before Dr. Williams sent for me, she thought she had another miscarriage. 'She had some sanguineous discharge, accompanied with uterine expulsive pains. This continued with occasional subsidence of the pains, but not for long, they having appeared like strong labour pains, to-day they have been very severe, and this afternoon she parted with a large quantity of water which the nurse considered to be the liquor amnii, but it gave no relief. There is some tenderness of the uterus and peritoneum generally, she is very anæmic and prostrate, and able to take but little nourishment, her temperature is not much disturbed, and her pulse is feeble, ranges from 80 to 100.' I saw the patient next day, and found the roof of the pelvis fixed, and an ill-defined feeling of boggiess all over the abdomen. But the patient was so tender that an examination was impossible, and her condition of anæmia was so serious that I did not feel justified in pressing the employment of an anæsthetic unless I might at the same time operate. I gave the opinion that there was nothing in the uterus, and I doubted very much the belief that the patient had concerning her miscarriage. I hazarded a diagnosis of ruptured tubal preg-

nancy, but felt by no means quite sure of it, but seeing that the patient was extremely ill, I urged an exploratory operation without delay. This was at once assented to by Drs. Edward and Llewelyn Williams, and the husband of the patient. So that I returned to Wrexham next morning and found the patient much worse, far more exsanguine. I opened the abdomen at once, and found it full of clots and bloody serum, several pints of which I removed; the source of the hæmorrhage I found to be a tube distended by an ovum ruptured. I removed it with much difficulty, and employed a drainage tube. The patient has made a tedious but a complete recovery.

Concerning these cases I have first of all to say that they complete a list of thirty-five operations performed, every one of them, under conditions of the utmost gravity, where life was threatened, and I have no hesitation at all in saying that thirty-two or thirty-three of these lives, if not all thirty-five, would have been sacrificed but for prompt interference. Of the thirty-five only two have succumbed, one, as I have already said, the first on which I operated, because I knew not what to do. I was too long over the operation; I fiddled about securing the bleeding points as they arose instead of doing as I always do now, separating all adhesions, regardless of the bleeding points, until I got as rapidly as I could down to the base of the tumour, which is the broad ligament. A ligature placed round that and secured at once arrests the hæmorrhage, not a drop was ever lost after that. In the other case who died, No. 4, the hæmorrhage had already progressed too far, the patient was almost dead at the time I operated. She made a great struggle to get through, and lived five days, but then succumbed. I almost wish, in this case, I had tried transfusion, but I have no great belief in the efficacy of that proceeding, and therefore did not do it. I think now I have cause to regret, perhaps, not having made the effort.

All the points in my previous papers on this subject are confirmed by the facts of these twelve cases. The diagnosis

is not always possible, but it may be made correctly in probably 85 per cent. of the cases ; the real clue to the nature of the case is a history of sterility for some considerable time, the arrest of menstruation for weeks or even months, and a sudden access of pain and collapse, with repetitions of these attacks as graphically described by Dr. Dolan in his communication concerning his own case. The operation is simplicity itself. Open the abdomen, go at once to the seat of the rupture, that is, the broad ligament, and tie it, for until you come to the ligament itself, the tissue is always so rotten and friable that any attempt to arrest the bleeding in any other way cannot succeed. Then clear out the débris, and put in a drainage tube. Of course amputation of the ligatured mass is a matter of necessity, nobody would ever dream of leaving such a thing to putrefy in the abdomen.

Mr. J. E. Burton, of Liverpool, seems to have some method of his own by which he could leave a woman, as he says, in a perfectly clean condition surgically, and yet leave a mass of disintegrated organs, infiltrated throughout with blood clots, to rot in the abdomen, and if this mass is removed he calls it a mutilation. Technically it is a mutilation in the sense that the woman rises from her sick bed with one Fallopian tube and probably one ovary where formerly she had two, but it cannot be imagined that these organs could ever resume their functions after the operation, and they certainly could not maintain any active life after the broad ligament was tied. To talk, therefore, of this being a mutilation, an operation that can be dispensed with, or an operation that can be successfully accomplished in other ways, can only be the utterances of a man who has had no experience on the subject at all.

It may be, however, that Mr. J. E. Burton has had revealed to him, by some special interposition of divine providence, a new method of abdominal surgery which has been denied to me. If this is so, I call upon him to declare it.

Speaking of the treatment of these cases, one is obliged to allude to the scheme by which it is proposed to destroy

the life of the fœtus and arrest the growth of the ovum. All I can say is I am never called in to these cases until the discussion of a proposal of that kind is too late, for being engaged exclusively in special practice, I have no opportunities of seeing, and never have seen them until the period of rupture. We have, then, no concern with the fœtus at all; we are dealing with bleeding from the placental structure and from the maternal semises in association with it. An electrolytic needle under such circumstances would have just as much effect as a pinch of snuff, and in one of the preparations now laid before you we have abundant proof of the fœtus having been dead for weeks, and yet hæmorrhage had been going on. The probability is that that fœtus had been dead for ten weeks before the operation was performed, and yet the bleeding had been going on on the morning of the operation. If the cases were seen and diagnosed, as I have already publicly expressed my doubt they could be, before the period of rupture, the introduction of an electrolytic needle, if it happened to pierce the body of the fœtus, might kill it, but would it kill the placenta, which as we know in the majority of instances appears to go on growing after the fœtus is dead? There can be no question that in these cases it goes on growing after the fœtus is dead, but whether this be the case or not, the propriety of destroying the child before the period of rupture, if its presence in the abnormal position can be recognised, I leave to the discussion of the physicians who see these cases before the period of rupture. When the period of rupture, however, has been reached, and the hæmorrhage is going on, there is nothing, so far as I can see, but for us to follow the surgical rule to cut down and tie the bleeding point.

That I should be able to produce within the short period of seven years thirty-five cases of this condition treated by operation, confirms completely the statement of Dr. Blundell, that it is by no means uncommon. That it has been, when left alone, almost uniformly fatal is again a view which he strongly maintains, and which all evidence confirms. In fact

there is a paragraph in Dr. Blundell's writings which sums up all that was known, and is known now, save in the matter of the operative details, concerning the frequency and cause of this peculiar displacement. 'I have never seen any case of tubular pregnancy in which the tube was of great size. More generally this canal enlarges to about the size of a small fist, sometimes to the size of a pullet's egg only ; and, in the early part of gestation (say in the second or third month), this cyst bursting open, the child escapes into the peritoneal sac, and the woman suddenly perishes by an internal hæmorrhage. Many women, I have little doubt, die in this way, but, being buried without examination, the real cause of their death is never ascertained. Three or four tubal gestations of this kind have taken place within the circle of my own obstetric acquaintance, whence I infer that the disease is by no means rare.' Thanks to the progressive emancipation of the professional mind from the thralldom of authority within the last ten years, we have now the means, if we have a reasonable time in which to act, to save at least the great majority of these cases.

The Society then adjourned.

REVIEWS.

Transactions of the American Gynecological Society for the year 1886.

Several of the articles contained in the 'Transactions' have already been noticed by us, and will not be again referred to, but of those remaining, there are several of great importance, amongst which 'Pelvic Inflammations' by T. A. Emmet, 'The Use of Electricity in Gynecological Practice' by G. J. Engelmann, and 'Electrolysis in Gynecological Surgery' by W. H. Baker, contain matter of special interest. The two last-mentioned articles will be read with much interest, in view of the recent papers on the subject by Apostoli of Paris, which have of late caused so much stir in this country.

Dr. Emmet opens his paper on 'Pelvic Inflammations, or Cellulitis *versus* Peritonitis,' by asking 'What is pelvic inflammation?' Is it a cellulitis only, a peritonitis only, or are both forms of inflammation found together? Generally the term cellulitis is intended to imply an inflammation of the connective tissue found more or less abundantly in certain parts of the pelvis. If the inflammation is slight it may be limited to the connective tissue only without involving the serous membrane. If, however, the cellulitis is due to the introduction of septic material, it will be found that the peritoneum soon becomes involved in the inflammatory process. 'The opposing inflamed peritoneal surfaces quickly adhere throughout, or partially so, as an effort of nature to limit the extent of the disease, and thus is shut in the product of inflammation, which may remain encysted for an indefinite time.' In the opinion of the author the more limited a pelvic

inflammation the more likely it is to be a peritonitis, and is in all probability the remains of a more general and extended cellulitis. When the Fallopian tubes are diseased, it will usually be found that the cause of the disease is an inflammation of the connective tissue, that is to say, in every case of tubal inflammation, the disease is secondary to a cellulitis, except in cases of gonorrhœal poisoning. The prognosis in all these cases of pelvic inflammation should be very guarded. When the origin of the disease is septic absorption, some of the most unpromising cases yield in time to local treatment, and the same may be said of many of those cases in which the pelvic inflammation is of long standing and of frequent occurrence. The number of cases in which removal of the tubes is called for is limited, and the author protests against the indiscriminate manner in which the tubes are removed everywhere and by any one.

Dr. Engelmann's paper on 'The Use of Electricity in Gynæcological Practice' is undoubtedly an important addition to the literature of the subject, and its value is enhanced by the fact that the author's experience is great and extends over many years, he having 'for many years used electricity, galvanic and faradic, in gynæcological practice.' After a short review of the part electricity has hitherto played in gynæcological practice, some of the causes which brought it into disrepute amongst members of the medical profession are mentioned. These causes may, in short, be said to be: (1) the indefinite indications for the use of electricity; (2) the indiscriminate use of the galvanic or faradic current; (3) the indiscriminate use of the poles; (4) want of localisation and diffusion of the current; (5) want of exactness, if not total absence of measure of intensity of current; (6) use of currents altogether too weak to be effective, and limiting their intensity by the pain inflicted; (7) too lengthy sittings.

Now that the use of electricity is becoming more general, its nature and proper mode of application are better understood, and the results obtained from its use are more satisfactory. In order that electricity as a therapeutic agent in

gynæcological practice may be successful there are certain salient points to be observed. These the author presents in the following order: (1) The formation of strict indications. Just as we prescribe certain drugs for different diseases, so we must use the galvanic current in certain cases, while in another set of cases the faradic current will be indicated. The varying qualities of the two currents must be thoroughly understood, and each used in appropriate cases. (2) Differentiation between the varying forms and modifications of galvanic and faradic currents. Thus galvanic electricity produces chemical effects; faradic, generally speaking, mechanical effects; in the former the current is continuous, the tension low, and the quantity great; in faradic electricity the current is interrupted, the tension and quantity variable. The effect of each form of electricity varies with the intensity of the current used, with its constancy, and with the time it is used. (3) Differentiation between the active and indifferent pole and the observance of the polar method in galvanism. (4) Localisation and concentration of the current. This is important as we generally wish to limit the effect of the current to certain circumscribed parts. To effect this the active pole must be placed in contact with the part to be affected, while the opposite pole is placed as near the active pole as possible in order that the part to be affected may be effectually penetrated by the current. (5) Precision in dose and measure. The intensity of the current must be accurately determined and known. That this may be properly done, the galvanometer is an essential part of every battery. In medical electricity the unit is represented by a milli-ampère, the thousandth part of an ampère. 'The ampère represents the intensity of a current of one volt passing through one ohm.' The volt expresses the electro-motor force; the ohm the resistance offered to an electric current by a column of mercury of standard size. (6) Use of strong and effective currents. The intensity of the currents used has until lately been too small to be effective. It was a generally received axiom that no patient could bear a current

of greater intensity than 20 milliampères. Apostoli, however, has successfully demonstrated that these weak currents are valueless, and that currents of 100 to 250 milliampères, if the increase in strength be gradual, can be borne without any evil results. The current intensity most frequently used by the author averages from 40 to 80 milliampères, where he wishes to 'promote absorption and contraction in subinvolution of the uterus;' whilst for 'effective electrolytic action from 100 to 200 milliampères is called for.' (7) Short sittings are as a rule preferable to more prolonged *séances*. Twenty minutes the author considers too lengthy for one sitting, preferring to do what he has to do in five minutes. (8) Proper instruments for observation and treatment are necessary, though the author has in some cases found them wanting, strange as it may appear.

Passing over the description of the apparatus needed for the proper application of electricity in gynæcology, and the various modifications of galvanic and faradic electricity and their therapeutic effects, we come to the various states and conditions in which Dr. Engelmann has found electricity is serviceable. In gynæcology, electricity has given satisfactory results in (1) neoplasms of various kinds—fibroids, polypi, cystic growths, urethral caruncles; (2) chronic pelvic inflammation, parametritis, and perimetritis; (3) uterine hyperplasia; (4) chronic ovarian inflammation; (5) occlusion of the os and stenosis of the uterine canal; (6) the relief of engorgement and the accompanying pain; (7) subinvolution; (8) prolapsus uteri; (9) it is a valuable aid in the correction of various forms of displacement; (10) metrorrhagia; (11) certain forms of amenorrhœa; (12) the relief of many of the annoying reflex symptoms, the hystero-neurosis; (13) chorea and other nervous disturbances accompanying puberty and the menopause; (14) constipation due to inactivity of the muscular walls and dilatation of the rectum; (15) painful and difficult micturition, when due to spasmodic contraction or relaxation. The list is a long one, and includes many ailments very common in the female; but the use of electricity

is not confined to gynæcology only, for in the obstetric department its application is varied, and the success obtained by it is as great as in diseases of women. It is valuable in (1) uterine inertia, during and after labour ; (2) weakness and irregularity of labour-pains ; (3) *post-partum* hæmorrhage ; (4) imperfect involution ; (5) paralysis of urethra and bladder after labour ; (6) extra-uterine pregnancy ; (7) induction of premature labour. The author does not appear to have given it a trial in puerperal mastitis, or in atrophy or non-secretion of milk by the mammæ after delivery. In these conditions some authorities have advocated its use, and from experience can testify to its usefulness. The risk accompanying the use of electricity is so small that the author regards 'the rapid and perfect relief from pain as the most dangerous accident which can occur.' Unfortunately, our own experience, and that of others, hardly confirms this, as we have seen grave dangers arise during electrical treatment, even when carried out most judiciously and carefully. With regard to the frequency of the treatment, much will depend on the nature and severity of the case, but, as a rule, two sittings a week will be found to give the most satisfactory results. Mild currents may, however, be applied daily. 'The negative pole is generally used in preference to the positive, as it possesses a more decided electrolytic action, promotes absorption more, with less destruction or charring of tissue. When destruction direct and hæmostasis is desired, the positive pole may be used.' The author cites cases which have been under his care, suffering from various affections, as urethral caruncle, myxoma uteri, polypi, fibroids, endometritis and metritis, para- and peri-metritis, chronic ovarian irritation, &c., all of which were successfully treated by electricity. Though uterine displacements are included in the list of affections which are cured by the electric current, no cases of retroflexion, antelexion, or procidentia are detailed. 'If the retroflexion is due to relaxation of the anterior ligaments, these must be stimulated and strengthened by the faradic current.' We take it, then, that instances of cure of displace-

ments are so common and certain that recital of cases would be mere waste of time.

Case V. is interesting. The patient was suffering from an adherent ovarian tumour, distending the abdomen to the size of a nine-months pregnancy. She was emaciated, suffering from much pain and insomnia. The diagnosis made was '*ovarian sarcoma with perimetritis*,' and an operation was thought of. The author, however, tried the effect of the galvanic current, the negative pole being the active one. After five applications the girth of the abdomen was reduced by 5 inches. The patient now passed from under Dr. Engelmann's care, and was treated by her family doctor in the same way. In July of the same year, six months after leaving Dr. Engelmann, the tumour was 'smaller. Even the hard portion of the tumour became soft, pliable, and movable, the uterus decreased in size.' Dr. Engelmann is to be congratulated on the result, and if equally good results are to be obtained in other forms of malignant disease, the pioneers in this method of treatment will have rendered a service far beyond all calculation to suffering mankind, while malignant disease will be robbed of much of its terror. Electricity, as a therapeutic agent, is still in its infancy, and will doubtless advance to play a far more important part in medicine than it at present does. Care must, however, be taken that, in the enthusiasm that at present prevails about it, our results and observations are not falsified by over-zealousness. Space will not allow us to go more thoroughly into Dr. Engelmann's valuable paper, which should be carefully perused by every gynæcologist. That it is an addition to the literature of the subject is certain, and that it will in future be regarded as one of the foundation-stones upon which our knowledge of the use of electricity in gynæcology is built we can confidently assert.

Other papers of interest are : 'The Value of the Bluish Discolouration of the Vaginal Entrance as a Sign of Pregnancy,' by James R. Chadwick, M.D. In the author's opinion, this bluish discolouration of the vaginal entrance is of great value

in diagnosing pregnancy. It is due, not, as is generally supposed, to venous stasis dependent on pressure, but to the 'great afflux of blood caused by the necessity of nourishing the fœtus.' He has never seen this discolouration in ascites, fibroid or ovarian tumours. In a paper entitled 'Ergot after Labour,' by John Goodman, M.D., the author discards the use of ergot after delivery, and thus agrees with most of the well-known obstetricians in this country. He lays it down as a rule 'never to give ergot at the close of the third stage of labour, unless the danger of hæmorrhage is imminent.' If, however, chloroform has been administered, ergot in small doses may be administered.

Pregnancy and Parturition. By PAUL F. MUNDÉ.

In this small monograph of one hundred and ten pages, we find a short account of pregnancy, normal and abnormal, parturition and the puerperal state. In a book of this size we cannot expect to find all the newest theories of each particular state, and the author, in the preface, is careful to mention this fact.

There are many facts relating to pregnancy, parturition, and the puerperal state which, for want of space, are omitted, but the book will be found pleasant reading, and to contain many useful hints, especially to the obstetric student and general practitioner, and we anticipate a ready sale for this useful little volume.

*SUMMARY OF GYNÆCOLOGY, INCLUDING
OBSTETRICS.*

THE ARCHIVES OF GYNÆCOLOGY.

Oöphorectomy in Neurotic Women.—A correspondent to this Journal gives some of the results obtained by Professor Schroeder, who performed castration on some neurotic women. Schroeder was not very sanguine about the operation, his experience teaching him that in some cases benefit might be derived from the operation, but in others the result was very doubtful. In one case, two years after the operation, the woman's sexual appetite was 'completely dead,' but she was suffering from marked vaginismus. In the second case, one year after the operation, all the old cramps returned. The third case did well for some time, but five years after the operation she began to suffer from fainting fits and incontinence of urine. In these cases the ovaries only were removed, and in every case menstruation ceased entirely.

Cocaine in Parturition.—Doleris and Dubois have used a solution containing water, glycerine, and hydrochlorate of cocaine (4 per cent.) to lull the pains of labour. The cervix, vaginal walls, and vulva were freely swabbed with this solution during the first, second, and third stages of labour, the result in every case being to suppress the pains due to contraction of the uterus, dilatation of the os uteri, and to the dilatation of the vulva. The drug in no way interfered with the progress of labour. The uterine muscles contracted with their usual strength, labour was completed in the usual time, and pain was altogether absent.

REVUE MÉDICALE D'EST.

Anteversion and Antelexion of the Uterus during Labour.

By Dr. S. REMY.

The author concludes: (1) That an attempt should always be made to correct the forward inclination and antelexion of the uterus, during the second stage of labour, by the various proceedings that are known to us, dorsal decubitus, elevation of the pelvis, or replacing the organ with every care and precaution; (2) the organ must be kept in place by an abdominal binder or belt; (3) if more active interference is not indicated, the patient should be instructed to refrain from voluntary efforts, so as to allow the uterus to act alone; (4) if these proceedings fail, the forceps must be used.

LA SEMAINE MÉDICALE.

M. Mesnet reports a case of delivery during hypnotism in the July number of this Journal. The patient was a primipara aged 22 years. At first pains were severe, and the patient complained a great deal, but when hypnotised the labour-pains, though present as before, were robbed of their terror, and labour was brought to a successful termination. The patient said 'she felt the pains coming on, but did not suffer; she felt very well in that state.' The labour was normal, the uterus contracted firmly after expulsion of the placenta, there was no hæmorrhage. Half an hour after delivery she was wakened up, and the only way she recognised delivery had been accomplished was the disappearance of the abdominal tumour. During labour she answered questions and described her sensations, but on being awakened declared she remembered nothing. M. Mesnet thinks hypnotism can never be generally practised in midwifery, in which opinion we concur.

Samschin on the Function of the Ureters.—Samschin having made experiments with a view to determine the

function of the ureters, has come to the following conclusions:—

1. Contraction of the ureters takes place in both man and the lower animals in a peristaltic manner. Each contraction results in the discharge of a variable quantity of urine.

2. The contractions at the vesicle orifices of the ureters do not take place synchronously.

3. The number of contractions observed at the orifice of a ureter in a given time is not constant, but is found to vary with each observation.

4. The total quantity of urine discharged by each ureter in a given time varies, as well as the average quantity discharged by each in a single contraction; the latter quantity varies between 8 and 2 ccm.

5. The maximum of quantity discharged by a single contraction amounted to 4 ccm.

6. No increase in the number of contractions was observed to take place after the copious injection of fluids.—*Centralb.f. Gynäk.*, No. 19, 1887.

BULLETIN GÉNÉRAL DE THÉRAPEUTIQUE.

Jordanis on the Employment of Electricity in Atrophy of the Mammary Gland.—According to the author very satisfactory results may be obtained in those cases where, after delivery, the mammæ are small and shrunken and do not secrete milk. In a case reported, the patient had been confined eight days, but the child was not put to the breast, as it was small and soft and not secreting milk. Electricity was applied, and after a few séances the breasts became firm, large, and rounded, milk was secreted, and the infant was suckled. The improvement was lasting. The Faradic current was used, the positive pole was placed over the breast, but the intensity of the current was not noted.

GAZETTE DE GYNÉCOLOGIE.

Sauve on Hysterectomy in Uterine Cancer.—Hysterectomy, when performed in suitable cases, gives the patient a new lease of life, the disease, if it does return, being attended with less pain than before. The operation is indicated (1) When a removal of a portion of the uterus has failed to give satisfactory results; (2) when such a partial operation is manifestly impossible or insufficient; (3) when cachexia is not too far advanced, and the parametrium is still healthy; (4) the method of election is colpo-hysterectomy, which is not more difficult than the principal abdominal operations. The strictest antiseptic precautions must be used.

JOURNAL D'ACCOUCHEMENT.

Hubert on a case of Extra-uterine Gestation.—The patient was a young girl 22 years of age, who had died very suddenly. At the *post-mortem* examination a foetus about four months old was found in the abdominal cavity, lying in a large quantity of blood. The pelvic contents were examined, and a *uterus semi-partitus* was found, one of its cavities having burst and allowed the escape of the foetus into the abdominal cavity. Separated by a slight depression from the right superior angle of the uterus was an oval tumour, slightly flattened from before backwards, and covered with peritoneum. The tumour which was adherent to the side of the uterus measured 10 cm. in length, 6 cm. in breadth, and $3\frac{1}{2}$ cm. in thickness. Below, the tumour was continuous with the fimbriated extremity of the Fallopian tube, and had attached to its lower surface the right ovary and right round ligament. The committee appointed to examine the specimen declared it to be a case of undoubted tubal pregnancy.

ANNALES DE GYNÉCOLOGIE ET D'OBSTÉTRIQUE.

Rivière on Purulent Ophthalmia in Infants.—The subject of purulent ophthalmia in newly born children is interesting and very important, and is very fully considered by Dr. Rivière. After much experience, extending over a considerable time, the conclusions he arrives at are that purulent ophthalmia is (1) an affection of the greatest importance, nearly one-third of blind people owing their infirmity to this cause; (2) the disease is dangerous, not only in maternities, but amongst young people and adults; (3) the disease is due to a specific germ, the gonococcus of Weisser, which is found in the vagina and in the eyes of people suffering from purulent ophthalmia; (4) there are certain predisposing causes, as too great a glare, the differences of temperature between the uterine cavity and the surrounding air, unhealthy surroundings, draughts, &c.; (5) the infection may be either by direct or indirect means: direct when the contagion passes from the vaginal wall to the eye, or indirect when the germ is carried by means of the air from a person already suffering from the disease; (6) the time at which the disease generally shows itself in the newly born is three or four days after birth; (7) the treatment should aim at destroying the germ, rendering the soil in which the germ multiplies unsuitable for its growth, and to subdue all inflammatory processes.

ARCHIVES DE TOCOLOGIE.

Interstitial Fibroma of the Uterus, with Antelexion and Purulent Metritis. By M. TRÉLAT.

The patient was 57 years of age, married, no children. Catamenia ceased at 48 years of age. When she was 55 years old she noticed a discharge which was at first clear, watery, and inodorous, but later on became sero-purulent or even purulent. Some time after the first appearance of the discharge she began to complain of acute pains in the

abdomen, for which she sought relief. The patient was thin, with a slightly yellow cachectic appearance. On vaginal examination, the cervix was found to be almost virginal, the external os was extremely small, and a sound could not be passed beyond the internal os. There was considerable vaginismus present. After several attempts the sound at last passed the internal os, when the cause of the obstruction was found to be an acute antelexion. The cervix was dilated and the uterine cavity explored with the finger, the patient being anæsthetised in order to make a thorough examination. Occupying the anterior wall was a small fibroma, the size of a nut, evidently of very old standing, projecting somewhat into the uterine cavity. The interesting point in this case was the difficulty in diagnosis, which was increased by the sensitiveness and involuntary resistance offered by the patient at every examination.

Prolapsus Uteri and its Mode of Production.

By M. TRÉLAT.

The internal genital organs are kept in place by the apo-neurosis of the perinæum and the levator ani muscle, also by the uterine ligaments, especially the vesico-uterine ligament : consequently the causes of prolapse of the uterus may be divided into those due to (1) tears of the perinæum, (2) loss of tonicity of the levator ani. The displacement begins at one point and in time affects the vaginal walls, the bladder, the rectum and uterus ; very seldom is it limited to one organ.

Inversion of the Uterus. By M. LE FORT.

A case of inversion of the uterus is recorded in which the fundus was removed after attempts to replace the organ. The patient was delivered in February 1887, and traction made on the cord, with the result that the fundus became inverted. It was immediately re-inverted, but three days after became again inverted, and the patient began to lose a considerable quantity of blood. On June 10 several attempts

were made to reduce the organ. No chloroform was used, and the manual attempts all failed, as did the use of a Gariel's pessary. On July 21 an elastic ligature was placed several times round the pedicle and fixed there. The uterus became detached on August 3, the patient having suffered no pain and losing no blood.

Lesions of the Placenta in Albuminuria.

By Dr. ROUHOUD.

Hæmorrhagic lesions of the placenta have long been recognised, and were first described by Jacquemier, later by Verrier, Bustamante, Charpentier, and others, but the etiology of the lesions has been scarcely touched upon by these authors. Chantreuil was the first who recognised these lesions in many cases of albuminuria which came under his notice. Tarnier regards albuminuria as a frequent cause of placental hæmorrhage. The author shortly describes the placenta and then proceeds to a description of the hæmorrhages. In the first variety, which is the rarest, the cavity is irregular, anfractuous, with radiating prolongations, which, however, never communicate with the surface of the placenta. In the second variety the blood which has escaped forms numerous oval or rounded foci which are clearly circumscribed, the walls being formed by the placental cotyledons. When the foci are of recent origin the surrounding tissues are normal in colour, but soon become discoloured. These extravasations are situated near the edge of the placenta, but equidistant from the foetal and maternal surface. They may number from four to fifteen or even more, but average five to six. When the extravasation is recent the clot is uniform in colour, but soon begins to undergo organisation, the centre of the clot being the first part which becomes discoloured. Sometimes a small cavity is formed which contains a fluid resembling pus, which has been mistaken for suppuration of the placenta. The consistence of the clot has been aptly compared to that of red-currant jelly. The membranes very rarely exhibit these hæmorrhagic extravasations, while the

cord is always normal. These placental lesions are found in about 40 per cent. of women suffering from albuminuria. Of 29 cases of albuminuria with placental lesions, 11 children were still-born, the remaining being small and below the average weight of a foetus at full term.

Besnier on a Case of Purulent Puerperal Peritonitis treated by Aspiration—Cure.—This case is of interest, as it is another proof that in these cases of purulent peritonitis following childbirth the treatment adopted should be vigorous instead of the 'do-nothing' treatment hitherto adopted. The patient was a married woman aged 26 years. She had been married two years; during the first year she had had two abortions. She became pregnant for the third time, and was delivered by a midwife on August 27, 1886, after a perfectly normal pregnancy. Four days after delivery she was seized with rigors and sweats, the temperature rose considerably, and she had frequent vomiting with much abdominal pain. She continued in this state for fifteen days, when she was taken into the country, where she remained six weeks, and then returned to Paris. When she was first seen by Dr. Besnier after her return from the country, he found her in the following state: Much emaciation, temperature 37° , pulse small and weak, 100 per minute, profuse nocturnal sweats preceded by shiverings and accompanied by general malaise. Abdomen much distended, resembling that of a woman about eight months pregnant, presenting some resistance when moderately firm pressure is made; tenderness, especially in the sides, less about the umbilicus. On percussion there was hyper-resonance over the upper third of the abdomen, due to some coils of intestine which appeared under the abdominal walls; absolute dulness in the lower third of the abdomen, with marked signs of fluctuation. This dulness and fluctuation changed according to the position of the patient. Breathing was rapid, the breath sounds being weak; heart normal; the urine did not contain albumen. The diagnosis was purulent puerperal peritonitis. The abdomen was accordingly punctured with a trocar of medium size and $5\frac{1}{2}$ litres of

purulent fluid drawn off. Immediate relief was afforded the patient, who gradually recovered, and now enjoys perfect health.

Polaillon on a Case of Hermaphroditism. — This case was reported to the Obstetrical and Gynæcological Society of Paris. During life the patient presented many features common to the female sex. Her skin was fine and soft, devoid of hairs. Her figure was rounded, shoulders drooping. On the chest were two small mammæ with nipples and marked areola. After death special examination of the pelvic contents and genital organs was made. The pelvis was large, like that of a female. The pubis was covered with a marked Mons Veneris ; below this were two thickened folds of skin resembling the labia majora, forming below a true fourchette. There was a well-marked penis, 4 cm. in length, terminating in a gland which was covered by a prepuce. The meatus urinarius was situated in the centre of the gland. Below the penis was a small wrinkled scrotum, in which no testicle was found. Behind the scrotum was a depression simulating the vulvar orifice and the vagina. The bladder was separated from the rectum by a very deep and well-marked peritoneal pouch. No traces of uterus or ovaries were found in the pelvis, though carefully looked for, nor were any testicles found here, so that this specimen was an hermaphrodite of the neuter gender.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

The Operative Treatment of Retro-peritoneal Cysts in connection with Miculicz's Method of Drainage. By CHRISTIAN FENGER, M.D.

The author briefly reviews the etiology and symptoms of these broad ligament cysts, and treats more fully of the methods of treatment. In some cases simple puncture will effect a cure. One case is mentioned in which the author diagnosed a broad ligament cyst and drew off from it by means of a hypodermic syringe a few drops of fluid. In a

month's time the cyst had disappeared. When a cyst is recognised as a parovarian, the broad ligament should be incised to the surface of the tumour, which is then shelled out from its cavity. Sometimes, if the pedicle is long, the cyst may be removed as an ovarian cystoma. There are some cases, however, in which the cysts cannot be entirely removed, owing to adhesion to the intestines, &c. In these cases, after removing a portion of the cyst, its walls are stitched to the abdominal wound, and drainage adopted. The author has had very satisfactory results from Miculicz's method of draining. He 'takes a small piece of iodoform gauze, stitches a silk thread to the centre of it, and folds it up in the form of a pouch, the silk thread being inside, that the pouch may be drawn up from the bottom by it. The pouch is pushed down to the bottom of the cavity, and if nooks and corners exist, it is pushed out so as to completely fill them. The inside of the pouch is packed with iodoform gauze, as much as is necessary to completely fill up these spaces.' The advantages of this method over the ordinary glass or rubber drainage tube are, (1) the antiseptic property of the iodoform ; (2) the entire wall of the cyst is reached ; (3) the capillary attraction of the gauze brings out everything ; (4) when it is used to drain the peritoneal cavity, fluid will be sucked up more easily and in larger quantities than when a glass drainage tube is used.

Conservatism in Gynæcology. By HORATIO BIGELOW, M.D.

The large experience possessed by Dr. Bigelow in diseases of women is sufficient guarantee that any article emanating from his pen is valuable. Experience has confirmed his opinion, which he has frequently expressed, that a conservative method of treating diseases of women is not sufficiently followed, and this is especially the case in oöphoritis and salpingitis. As regards uterine tumours, he holds that *no tumour calls for surgical interference unless it is immediately endangering life*. Hæmorrhage from a fibro-myoma only becomes

dangerous when it fails to yield to medicines, as ergot. The uterine tumour may develop so rapidly as to block up the pelvis and interfere with those functions which are essential to the well-being of the patient; but even in these cases removal of the tumour by surgical means is not called for until other remedies, ergot or electricity, have been tried and failed. The desire for surgical renown has become so great that many medical men are carried away by the epidemic, and entirely forget that conservative treatment would, in many cases, be followed by favourable results, without subjecting the patient to the risk a surgical operation always involves. He cannot agree with the advice tendered by one surgeon, 'When in doubt, open the abdomen and find out.' He thinks a more accurate diagnosis should be made in every case, before advising abdominal section. The author knows of no cure for rapidly growing cystic or malignant tumours, except surgical interference, the earlier the better. A thorough knowledge of the conservative method of treatment coupled with judicious surgical interference will give the most brilliant and successful results.

Ovarian Cyst simulating Ectopic Gestation.

By Dr. F. A. PACKARD.

K. T., aged 29, married second time two years ago. By first husband had five children, no miscarriages. Menstruation regular and normal until November. Absent during November and December. After that hæmorrhage frequent, clotted, and sometimes with shreds resembling decidua. Breasts tingle, not enlarged. Abdomen not enlarged; uterine discharge fœtid. Has had no fever or chills. Vaginal examination showed the presence of a cystic tumour in the pelvis to right of ovary, about the size of a two-months gravid uterus. The diagnosis was ovarian right. At the operation, from which the patient recovered, the right ovary was found to be cystic, being enlarged and divided into two loculi, one containing serous fluid, the other blood-stained fluid.

Laceration of the Cervix Uteri.

By J. HENRY CARSTENS, M.D.

Dr. Carstens enters shortly into the pathology and symptoms of lacerated cervix. Like many other physicians, he holds that malignant disease may be the outcome of a tear if not repaired. He concludes: (1) all lacerations which have not cicatrized should be repaired, even if no severe symptoms are produced, as they might be the starting-point of cancer; (2) all cases which have cicatrized, and cause sequelæ, such as subinvolution, displacements, with the various reflex symptoms, should also be operated on, great care being taken in these cases to remove all cicatricial tissue; (3) the wedge-shaped piece can be removed with a knife or scissors, the latter to be preferred; (4) silkworm gut or catgut is to be preferred, although silk or silver wire may be used.

Pyosalpinx in its Relation to Puerperal Fever.

By Dr. J. M. BALDY.

The author exhibited a specimen of pyosalpinx, and gave the history of the case. The patient was 23 years of age, the mother of two children, the last being born two or three days previously. Two days after the confinement the patient began to suffer from symptoms of puerperal fever. Vaginal examination disclosed a subinvolted uterus, with a large boggy mass on the left side, firmly adherent, tortuous, and tender to touch. Pyosalpinx was diagnosed, abdominal incision advised and submitted to. At the operation it was found that the right ovary and tube were healthy. The left tube was dilated and large, firmly adherent to the surrounding parts, the adhesions being broken down with difficulty. There was also an abscess of the cellular tissue, which was opened. The left ovary was adherent to the left tube and filled with small abscesses. The diseased tube and ovary were removed, the abscess opened, well washed out, and a

drainage tube inserted. The patient made an excellent recovery. The belief is gradually gaining ground that many of the cases now called puerperal fever are in reality cases of pyosalpinx or pelvic abscesses, the contents of which have escaped into the peritoneal cavity during labour, and that by a timely operation many a case of so-called puerperal fever may be saved. Evidence is now gradually but surely increasing to show that such is the case. Tait records four cases which were diagnosed during life as puerperal fever, but which *post-mortem* examination showed to be pyosalpinx. Mastin has recorded similar cases; Sängcr mentions two which have come to his knowledge. Hecker mentions cases. It is our duty, therefore, in cases of supposed puerperal fever to make a most thorough and careful examination, and if fulness be found on both sides of the uterus, or only on one side, with pain on touch and with constitutional symptoms of gravity, Dr. Baldy advises immediate operation.

Address on Obstetrics and Gynæcology.

By F. M. JOHNSON, M.D., Kansas City.

The address on Obstetrics and Gynæcology delivered by Dr. Johnson before the annual meeting of the American Medical Association is a review of the advances made in these two branches of medical science during the past year in America. The subjects touched upon are numerous, and consequently many are but briefly treated. Amongst the subjects more especially noted are, 'A New Explanation of Renal Troubles, Eclampsia, and other Pathological Phenomena of Pregnancy and Labour,' by Dr. A. F. A. King, of Washington, and 'The Management of the Normal Third Stage of Labour and the Puerperal State.' The former article has already been noticed in this Journal, so that it will be unnecessary to give Dr. King's ideas and statistics over again. The second article is one full of interest, and raises the vexed question of the administration of ergot in the third stage of normal labour. Against the use of ergot Dr. Johnson has several objections :

(1) ergotism once established is beyond control, it will run its course ; ergotic contraction of the uterus is tetanic in character, and therefore not physiological ; (3) this tetanic contraction may be followed by loss of contractile power of the uterine muscular fibres, and thus tends to secondary hæmorrhage ; and (4) retards involution. On *the management of the placenta* no special rules are laid down, except that the delivery of the placenta should not be delayed beyond fifteen minutes after the expulsion of the child. The use of *vaginal and intra-uterine injections* during the puerperal period is an advantage, and has greatly reduced the mortality ; still, if carried to excess, it is unnecessary and constitutes a danger to the mother. The improved operation for Cæsarian section is now looked upon more favourably than formerly. Alexander's operation is still on trial, but will not long survive. The successful results obtained in hysterectomy will lead, if care is not taken, to an abuse of the operation, and the same remark applies to ovariectomy for cystic degeneration and enlargement of the ovaries.

Caldwell on Intra-uterine Therapeutics. — The two subjects brought most prominently forward by the author, in his address delivered before the section on Obstetrics and Gynæcology, at the annual meeting of the American Medical Association, are the use of antiseptics in midwifery and gynæcology, and the vexed question of curetting the puerperal uterus. The use of intra-uterine injections immediately or shortly following labour is closely allied to the antiseptics in midwifery ; as far back as the time of Hippocrates, intra-uterine injections were used to arrest *post-partum* hæmorrhage and to aid the expulsion of the secundines, but it was not until the last half of the present century, when the germ theory had seized hold of the minds of men, that they were used to destroy micro-organisms and arrest the fatal ravages of puerperal fever. It is not always an easy matter to determine at what part of the genital track the poison gained access to the system, but as the vagina is the channel through which the poison passes out, we should endeavour to render

it aseptic. For intra-uterine injections Breisky uses a 5 per cent. solution of carbolic acid, or a strong solution of chloride of lime. Ehrendorfer first washes out the uterine cavity with a 2 per cent. solution of carbolic acid, and then passes into the cavity a suppository made as follows :—

Iodoform, 20 grms. Gum arabic. Glycerine. Starch, āā 200.

From this make three suppositories.

This method of treatment is indicated ‘(1) after all operations that require the introduction of the hand or any instrument into the uterine cavity ; (2) in every case in which there is a rise of temperature after childbirth, if it be evident that such increase of bodily heat has its foundation in a morbid process originating in the womb.’ If the bichloride of mercury is used, the strength of the solution should never be more than 1 in 4,000, and it is advisable to follow its administration by a vaginal injection of sterilised or boiled water, to prevent the absorption of the mercury into the system. The question of curetting the uterine cavity is still an open one ; many able observers are against the use of it, while others advocate its use most warmly. By the use of stringent antiseptic precautions, the use of the curette will bring about very favourable results in many cases. Martin, in a clinical lecture, says, ‘The whole question of the safety or danger of the operation hinges on the point as to whether you perform it perfectly antiseptically or not.’ The author thinks it unnecessary to dilate the cervix in order to curette, but, if dilatation has been decided on, he advocates the use of Hegar’s dilators in preference to tents.

THE PROVINCIAL MEDICAL JOURNAL.

On Emmet’s Operation for the Cure of Laceration of the Cervix Uteri, &c. By JAMES BRAITHWAITE, M.D.

Laceration of the cervix is liable to occur when the os is not fully dilated and the pains are strong. The use of the long forceps is also a cause. Laceration is more common in multiparæ than primiparæ, the reason of this being that in

primiparæ the tissues are healthy, whereas when a woman has given birth to several children 'the parts have to some extent lost their power of resistance from inflammatory action.' And laceration is more likely to occur when the os dilates. The site of the laceration is more frequently the left than the right side of the cervix, and commoner in the anterior lip than in the posterior. The importance of this lesson is differently estimated by various observers, Dr. Braithwaite holding an opinion between the two extremes. The removal of the cicatricial tissue generally found in the angle of the wound is insisted on by the author, and cases are mentioned in which the operation was performed a second time, as the cicatricial plug was not entirely removed at the first sitting, and many of the symptoms continued.

The most usual and important symptoms are pains and menorrhagia or metrorrhagia, and, if no other cause can be found for them, an operation is indicated. In conclusion, the author lays stress on the preparatory treatment to be adopted in these cases before an operation is undertaken, and cautions his readers to be careful not to operate in every case of torn cervix, as in many the symptoms are not due to the tear, but to some other disease.

Placenta Prævia. By JOHN F. LE PAGE, M.D.

A short history of the placenta prævia begins this paper, which was read at the Central Medical Society of Manchester. Out of 3,400 labours attended by the writer, placenta prævia was met with 22 times, but, in taking an average, 2 of these prævia cases must be deducted, as they were consultation cases, leaving 20 cases in 3,400, or 1 in 170. This average differs considerably from some other published ones. Thus Lomer's average was 1 in 50; the Royal Maternity Charity, 1 in 700; the British Lying-in Hospital, 1 in 525.

The author's definition of placenta prævia is 'an attachment' (of the placenta) 'to that portion of the uterus, the development of which attains its maximum rate of growth during the latter half of gestation.' The varieties of this

attachment may be *central, partial, marginal*, and *lateral*, but in any case the attachment is limited by the internal os, and is never attached to any part of the cervix.

The etiology of the subject is next discussed, and the various theories gone into. According to the author, placenta prævia is due to the rupture of a maturing Graafian during complete coitus—‘complete not only as far as the male is concerned, but in which the orgasm in the female is accomplished.’ The maturing follicle already distended and under considerable tension is finally ruptured by the sudden and extra tension brought about by the sexual act. The ovum or ova travel along the tube and enter a uterus unprepared for their reception, and in time may pass out of the uterus into the vagina, and there become disintegrated. But if, while the ovum is making its way towards the cervix, the changes found in connection with menstruation begin, the ovum will be arrested in the lower uterine segment, and, if impregnated by the male element, there will be formed a placenta prævia.

With regard to the treatment, Dr. Page is strongly of opinion that when placenta prævia is diagnosed we should at once induce labour, whether the child is viable or not, one reason being that if pregnancy is allowed to proceed sudden and alarming hæmorrhage may occur, to the danger both of mother and child.

The vaginal plug is regarded by the author as ‘unreliable, unscientific, unsafe,’ and is altogether discarded by him. The author concludes as follows, that ‘when it is known that placenta prævia exists, be it early or late in gestation, be it before any hæmorrhage has taken place or after, the induction of premature labour is in accord with the best interests of our patients.’ ‘When the question of induction of labour is involved, the life of the child is not of any consideration, (1) because, relatively, its life is of insignificant value; (2) because its chances of living are little if at all diminished by this procedure.’

Black on a Rare Clinical Case.—The case was that of a young lady, 16 years of age, who was suddenly attacked

with swelling of the neck, and slight pain in the right arm-pit. When first seen, temperature was 100° ; pulse, 108 per minute; tongue clean; bowels not confined. Though her health had never been robust, she had never suffered from any serious illness. On careful inquiry, it was found that the patient complained of irritation of the vulva. The mother was directed to examine the private parts, to see if there was anything to account for the irritation, but her answer was unsatisfactory. Though treatment had been prescribed to lower the feverishness of the patient, the temperature continued to rise, and now reached $103\frac{3}{4}^{\circ}$, and the pulse was 120 per minute. The patient was flushed and restless. Dr. Black now examined the vulva, and was surprised to find it in a state of acute gangrenous inflammation. 'The nymphæ and clitoris were intensely red and swollen, whilst their inner surfaces, as well as those of the fourchette and vagina, as far as one could see, were covered by ashen-grey sloughs, having a very fœtid odour.' All suspicious circumstances as to the cause of the disease were entirely absent, and though careful inquiry negatived the idea of scarlatinal or diphtheritic infection, Dr. Black concluded that it was 'a case of diphtheritic infection, obtained in some unknown manner.' Dr. Myrtle was asked to see the patient, and thought the inflammation erysipelatous in nature, and the patient was ordered the tincture of the muriate of iron internally and iodoform externally. From this time improvement set in, and the patient ultimately recovered.

The author remarks that this case must be classed with gangrenous stomatitis and vulval phagedæna, occurring in debilitated constitutions, in which typhus, typhoid, diphtheria, scarlatina, or measles is the exciting cause of the inflammation. The case presents, from a medico-legal point of view, several interesting and important points, into which the author briefly enters.

REVUE DES MALADIES DES FEMMES.

Curetting of the Uterine Cavity.—Four cases of death following the use of the curette having been reported in this Journal, an article upon the subject concludes: (1) that curetting the uterine cavity is a very useful operation in certain cases; (2) curetting the uterine cavity presents no dangers, when it is performed methodically and without violence by one accustomed to it, when all contra-indications are absent, and when the preparatory and consecutive treatment is carefully carried out; (3) curettement, which gives satisfactory results, and presents no danger in the hands of experienced gynaecologists, becomes very dangerous when performed by any one not sufficiently experienced in an operation of this kind.

Pott on the Treatment of Specific Vulvo-vaginitis in Young Girls.—The author recommends the following formula in these cases: iodoform, gr. 2 to 4; cacao butter, q.s., to be made into a bougie one centimetre in length. By this means he claims that after one or two applications a vulvo-vaginitis in the female will soon be cured, after having resisted every other form of treatment.

Nivert on the Treatment of Menorrhagia by Vaginal Injections of Warm Water.—This method of treatment has been in vogue some years. The vaginal injections, which must have a temperature of from 45° to 48° C., are useful in the following cases: (1) where menorrhagia is present with a large bulky congested uterus, with subinvolution dating from a confinement; (2) in chronic inflammations with recent or chronic exudations.

Lucas-Championnière on Listerism in Obstetrics.—The author lays down the following rules to be observed in every case of labour: (1) The patient must never be examined until the medical attendant has washed his hands in a weak carbolic solution, and anointed the examining finger with 1-10 carbolic oil; (2) during labour the genital parts

must be washed with a strong carbolic acid solution, and, if labour is tedious, a cloth wrung out in a weak carbolic solution must be placed on the vulva; (3) as soon as possible after delivery the vulva must be bathed with a weak carbolic solution, which is to be repeated several times a day; vaginal injections must never be made; (4) when it is necessary to interfere and instruments have been used, care must be taken to destroy any germs which may have entered. To this end use large quantities of strong carbolic lotion, then apply a carbolised cloth to the vulva and use no more vaginal injections.

Polailon on a Case of Pyometra.—This case was reported by M. Polailon to the Surgical Society of Paris. The patient after childbirth suffered from septicæmia, from which she ultimately recovered. Three months later she complained of an abdominal tumour, which on examination was found to reach as high up as the umbilicus and was evidently uterine. The tumour was punctured and about 900 grammes of purulent fluid escaped. Every antiseptic precaution was taken, and four weeks later the patient was cured.

Dujardin-Beautmetz on the Use of Ergotin Suppositories in the Treatment of Uterine Fibroids.—The composition of each mass is as follows: ergotin, 50 centigrammes; cacao butter, 150 centigrammes. They will be found to be very successful in arresting the hæmorrhage so frequent in uterine fibroids, while they do not interfere with the digestion nor give rise to any unpleasant consequences, as the liquid extract so frequently does.

Cheron on the Treatment of Membranous Dysmenorrhœa.—The remarks on the treatment of membranous dysmenorrhœa by dilatation of the cervical canal and curetting the uterine cavity were called forth by a paper entitled 'Membranous Dysmenorrhœa in a Virgin: Rapid Dilatation, Incision of the Cervix, Curetting, Recovery,' by Dr. Walton of Liège. Without entering into a discussion of the pathology of the disease, which is still undecided, the rarity and obstinacy of the affection is remarked on. With regard to the

treatment of this affection there are three schools, each holding different views. The first, not thoroughly recognising the nature of membranous dysmenorrhœa, are content with ordinary medical treatment, and as they have never obtained good results their prognosis is always unfavourable. The second school sees in the small size of the cervical canal the cause of all the troubles attendant on this disease, and accordingly dilate the cervical canal or incise the neck of the uterus. By these means satisfactory results have been obtained, but they are merely temporary. The third school believe the two chief points to be attended to are dilatation of the cervical canal and a modification of the uterine mucous membrane. To this end the curette is freely used. A typical case of membranous dysmenorrhœa is quoted, in which the treatment consisted of dilatation of the cervical canal, followed by scraping of the uterine mucous membrane, and intra-uterine injections of carbolic acid, the cure being complete. In this method of treatment the author coincides, as being the most rational and likely to bring about a complete cure.

Berruti on the Frequency, the Etiology, Symptoms, Diagnosis, and Treatment of Tubal Affections.—Diseases of the tubes have, owing to Lawson Tait, been the subject of much diligent inquiry of late years. According to Tait the loss of the ciliated epithelium lining the tubes is an important factor in the production of tubal pregnancy, occlusion of the tubes and hydrosalpinx. Lesions of the tubes are more frequent than is generally supposed ; that this is so is shown by a paper read before the Obstetrical Society of London by Dr. Lewers, who found that of 100 consecutive cases examined by him 17 presented affections of the tubes. This is probably too high a number to represent an average, yet it is not far from the mark. In five years Martin met with 287 cases of tubal disease. In conjunction with this disease there will generally be found, in the order of frequency, changes in the uterine mucous membrane, chronic peritonitis, adhesions, enlargement and inflammation of the ovaries, and lastly parametric exudations. Martin describes three forms

of salpingitis: (1) endosalpingitis or catarrhal salpingitis; (2) interstitial salpingitis; (3) follicular salpingitis. In Martin's opinion pyosalpinx is due to a microbe, either puerperal, the gonococcus, tubercle bacilli, &c., the puerperal form being the most frequent. The symptoms are: (1) pain of a dull gnawing character, sometimes continuous, radiating from the pelvis into the loins. If there be an escape of fluid from the tubes into the uterus, the pains become acute, simulating labour-pains; (2) profuse and irregular hæmorrhages; (3) a great change in the general constitution; (4) sterility. The diagnosis can only be made by a careful vaginal examination combined with abdominal palpation, when the diseased tube will be felt as a thickened cord, rather painful on pressure. With regard to the treatment, careful and prolonged medical treatment should be tried before surgical measures are adopted for the removal of the diseased organs.

THE AMERICAN LANCET.

Chlor-anæmia in Young Unmarried Women.—The author (Dr. R. C. Hutton) is of opinion that 'the least misleading and bewildering view of anæmia, in all its variations, is that it is but symptomatic of a morbid lesion or lesions,' the lesion in the case of young unmarried women being endocervicitis. Out of 40 cases examined by him, after every system of the body had been examined and found healthy, the uterus was finally examined, and 'a morbid catarrhal condition of the endocervix of the metra' was found. As an instance one case is mentioned. The patient was a factory girl, who for years had spent her living on physicians, but only got worse, until Dr. Hutton was called in, when the hitherto unsuspected endocervicitis was immediately unearthed and a cure soon effected, both of the endocervicitis and anæmia.

Landis on Puerperal Septicæmia.—There are three forms of this disease met with in the puerperal state: (1) acute septicæmia; (2) sub-acute or chronic septicæmia; (3) septi-

cæmia complicating or complicated by inflammations, as peritonitis, cellulitis. Amongst the causes of this grave affection the author mentions retention in the uterus of the lochial discharge, the entrance of micro-organisms into the uterus, a poisoning of the lochia when the temperature of the patient is raised from any cause. Whether the changes in this case be due to micrococci or to chemical or electrical changes is merely a secondary matter in the author's opinion.

DENVER MEDICAL TIMES.

Anderson on Antipyrin in Puerperal Fever.—Antipyrin in puerperal fever, though possessing no specific action, is of great value. It reduces the temperature, the kidneys are acted upon, the sweat glands secrete freely, and the salivary glands pour forth their secretion more abundantly and thus moisten a dry and fissured tongue. A case is quoted in which there was much pyrexia, rigors, dyspnœa, and pelvic pains. Quinine was tried, but without effect. Immediately antipyrin was administered the drug acted like a charm, the temperature was reduced and the patient made an excellent recovery. Instead of the rubber coil recommended by Thomas, or the use of quinine or Warburg's tincture, as advocated by Fordyce Barker, the author unhesitatingly advises the administration of antipyrin in moderate doses.

CANADA MEDICAL AND SURGICAL JOURNAL.

Alloway on Endometritis polyposa.—The author quotes two cases which came under his care. Case I.: The patient was married 15 years; had 9 children; no abortions. For three or four years past has suffered from severe menorrhagia and metrorrhagia, lasting sometimes two or three months. Suffered from much sacralgia and debility. Examination per vaginam showed the uterus to be retroflexed, the fundus low down and tender to touch; whole uterus enlarged; no myomatous involvement. Cervix lacerated, hypertrophied,

and cystic. Diagnosis—Cervical laceration, subinvolution, descent of uterus, retroflexion, endometritis polyposa. Treatment consisted in replacing the uterus, curetting the cavity, from which sessile vegetations were removed, and then washing it out with 1-2000 sublimate solution. Case II.—Patient 46 years old, married 18 years, 11 children, last one born three years ago. No abortions. Complaints of bearing-down pains, profuse leucorrhœa, menorrhagia, and metro-rhagia. Is very anæmic and weak. Vaginal examination showed the cervix was lacerated, there was much ectropion present, with erosion and cystic hypertrophy. Uterus enlarged, retroflexed; fundus tender. The treatment was the same as in the first case, except that it extended over a longer period, curetting being performed three times. The villousities which were removed were examined microscopically, and pronounced benign. Unfortunately, though described as benign growths, the pathological appearance of the removed tissues is not described. In many of these cases the villous growths, while pathologically benign, are clinically malignant, and no amount of curetting will entirely remove the disease.

AMERICAN JOURNAL OF OBSTETRICS.

Removal of Hairpin from Pregnant Uterus.

By J. A. FRUITNIGHT, A.M., M.D.

The patient was 24 years of age. She had already given birth to two children, and was now two and a half months advanced in her third pregnancy. Wishing to rid herself of the fœtus *in utero*, she had introduced into the uterus, according to her quite easily, a hairpin $4\frac{1}{2}$ inches in length, but on trying to withdraw it had failed. She therefore acquainted Dr. Fruitnight with the fact, and after several efforts on his part he failed. The patient was accordingly anæsthetised, and manual efforts were made to release the pin, but without success. Powerful traction was next made with a pair of uterine forceps, and after several unsuccessful attempts the

pin was released, bent nearly straight. The author remarks on the amount of violence a pregnant uterus will sometimes stand without abortion following.

Cattle-horn Lacerations of the Abdomen and Uterus in Pregnant Women.—Dr. Harris, after shortly commenting on the unsuccessful results of the Cæsarian section operation in America, notices the brilliant results obtained by Saenger, which he attributes *in toto* to two factors—an early interference, and the use of antiseptics. Nine cases are then quoted by the author, in which women of different nationalities, when pregnant, have been gored by oxen or bulls. Of these nine ‘laparo-hysterotic rips’ four have ended fatally to both mother and child, while five mothers and five infants have been saved, thus giving better results than have been obtained as yet in the United States.

Engelmann on Dry Treatment in Gynæcology.—The dry treatment advocated by the author is not intended to supplant all other methods of treatment, but as an ‘additional weapon in the hand of the gynæcologist.’ The long trial given to this method, and the successful results invariably attained, have induced the author to bring it before the notice of the profession. The dry treatment includes the use of powders, instead of solutions, when applications are to be made to the vagina or uterus, and of the tampon of non-absorbent cotton or wool, instead of the hitherto much used and often much abused pessary. The powders are composed of various substances—borax, alum, bismuth, mercury, iodine, &c., according to the result that is required. They are dusted on to the part, and if the endometrium be diseased special precautions must be observed, in order that the entire surface of the uterine cavity may be equally affected. The shape and size of the tampon are important. It should be oval in shape, from two and a half to three inches in length, and from one to one and a quarter inch in diameter. The cotton or wool of which it is made must not readily absorb moisture, and must be elastic and not too highly tied, otherwise much of its usefulness will be lost. The tampon is best placed by

means of a bivalve speculum. When properly placed it may remain *in situ* for twenty-four to forty-eight hours with much benefit to the patient, but if it cause discomfort or pain it should at once be removed. The dry tampon serves a variety of purposes. It may be used as (1) a medicinal agent. The medicated wool of iodine, perchloride of iron, tannated cotton is covered with plain cotton-wool so as to prevent any injury to the parts against which the tampon is in contact. (2) As a supporting agent. Thus in retroflexion, when the displacement has been corrected, the fundus is supported by tampons, and the vagina carefully packed so as to keep the support in position. One advantage this has is that it is a means of giving complete rest to the sexual organs without the necessity of asking delicate questions. (3) As an alterative and absorbent. (4) As a splint. (5) As an antiseptic, cleansing, and absorbent agent. (6) As a protector against friction and cold. (7) As a support to instruments. By the proper use of the dry treatment the author claims that the various forms of pessary can be abolished, the curettement of the endometrium, and other severe measures adopted in the treatment of this membrane, will pass into oblivion, and dangerous operations on the tubes and ovaries will not be so frequently resorted to.

Fernald on Puerperal Insanity.—The author in dealing with this subject only refers to insanity coming on during the first few weeks following delivery. The predisposing cause he believes is ‘an hereditary neurotic constitution,’ the exciting cause is ‘physical depression, resulting from a number of factors, of which labour is only one, some of the remainder having usually been acting for a shorter or longer time before delivery.’ The three types usually met with are—(1) acute mania, (2) melancholia, (3) dementia, the first type being the most common, the third variety the rarest. Though two-thirds of the cases recover, the prognosis should be guarded, as during the progress of the disease some complications may arise and be the cause of death. The treatment should consist in prophylaxis before labour, and anti-

septic precautions during and after labour. A large amount of sleep is necessary ; the infant must be removed from its mother ; the husband and relations excluded ; skilled nurses are requisite ; if possible home treatment is preferable to asylum treatment, though if the patient does not show signs of improvement early in the disease she should be removed to an asylum. Melancholia patients are always benefited by being at once removed to an asylum or some quiet country retreat. A small amount of alcoholic stimulant will be found of service. Chloral and bromide of potassium as hypnotics are vastly superior to opium. The author has had no experience with hyoscyamine, but would recommend it. The alimentary canal should be carefully attended to. During convalescence the child should be brought to its mother, and will frequently bring about a favourable change in its mother's condition.

OBSTETRICAL SOCIETY OF NEW YORK.

Dr. H. C. Coe read a paper entitled 'The Treatment of Acquired Antelexion associated with Disease of the Ovaries with reference to the question of Sterility.' The reader remarked on the frequency of acquired antelexion with prolapsed ovaries. He was certain the ovarian trouble did not bring about the antelexion, but he thought the converse very probable. It was impossible to separate the symptoms of these two conditions, and the distinction between ovarian dysmenorrhœa and the uterine form is gradually disappearing. One of the most important symptoms of this condition is *sterility*, which many a childless woman thinks more of than all the pains of dysmenorrhœa. When we have this condition of antelexion with prolapse of the ovaries present, it is a mistake to suppose that abdominal section is the only possible cure. Dr. Coe strongly urges on the profession to give divulsion a trial before advising laparotomy. He cites two cases which recently occurred in his practice. Both patients were married, but childless. Before marriage menstruation had been regular and painless. Since then well-

marked ovarian pain was present at each recurring menstrual period : 'Mastodynia, painful defæcation, shooting pains in the limbs on locomotion.' Both had enlarged and prolapsed ovaries, with anteflexed uterus, which was evidently acquired. After various methods of treatment had been tried and had failed, divulsion as a mere experiment was resorted to. In each case, though the pains of dysmenorrhœa were not altogether cured, they were alleviated, and the patients became pregnant. Both are now cured ; the dysmenorrhœa is relieved, and in each case the formerly prolapsed and enlarged ovaries are now not to be found. In those cases in which the ovaries are prolapsed, tender, and immovable, evidently from recent inflammation, divulsion is to be avoided. In anæmic young women, or in one approaching the climacteric, favourable and brilliant results are not to be expected.

Dr. Polk read a paper on 'Laparotomy for Adherent Retroflexed or Retroverted Uterus,' in which he pointed out the frequency of this disorder, which formed the subject of his paper, its pathological conditions and its symptoms. With regard to the treatment, he would advise laparotomy, and freeing the uterus, tubes, and ovaries from the adhesions which distort and bind them down. The freed uterus must then be replaced and kept in position by suitable means. Hysterorrhaphy he considers the most appropriate method of effecting this purpose, though were the Adam-Alexander's operation as simple he would recommend it instead of hysterorrhaphy.

Dr. Sims showed a wax model of a vascular tumour of the meatus urinarius. The tumour was the size of a walnut, and caused the patient great distress. It had been carefully dissected away. Microscopically the tumour was benign.

Dr. Wylie related a case of galactorrhœa : 'Eighteen months before he had delivered a healthy young woman of her first child, the infant only living six hours. On the eleventh or twelfth day after labour the temperature rose to 106° F., without any ascertainable cause ; quinine had no influence upon it. The patient's breasts were very large

before labour, and at the present time they continue to secrete milk abundantly. Belladonna, iodide of potassium in large doses, strapping, &c., had been tried in vain. The speaker had seen no record of a similar case.'

OBSTETRICAL SOCIETY OF CINCINNATI.

Zinke on Dropsy of the Villi of the Chorion.—The specimen exhibited was obtained from a woman twenty-four years of age, married nine months, no children. Menstruation ceased in September 1886. In January 1887, Dr. Zinke was called in, and found the patient flooding and complaining of pain in the hypogastric region. Rest and medicine were prescribed, and the patient soon recovered. During February the patient had an attack similar to the above, and in March a third attack. Pregnancy had been diagnosed in January, and at the examination in March the uterus had diminished in size. Hæmorrhage continued, and regular labour-pains set in. A large hydatiform mole was discharged, but no signs of a foetus were discovered. The interesting point in this case is that the patient was young and a multipara. The size of the uterus did not lead one to suspect hydatiform degeneration.

THE OBSTETRIC GAZETTE.

Management of the Breast.—The author, J. H. Carstens, M.D., thinks that fissured nipples and inflammation of the breasts should command more attention than they do. His method of treating breasts which threaten inflammation is to strap the gland firmly on the second day after the confinement, and in a few days remove the strapping and apply locally an ointment of iodide of potassium ointment, $\bar{3}$ ij, extract of belladonna, $\bar{3}$ j, while at the same time a mixture containing iodide of potassium is administered internally.

Fissure of the nipple is frequently a source of inflammation of the breast, and is caused by the use of alum, alcohol

&c., before confinement. To toughen them dry friction with the finger is best. When a fissure has formed the author recommends a 95 per cent. solution of carbolic acid, application to be made once or twice during the day. When suppuration has once begun, free openings under antiseptics should at once be made.

Fenger on Antisepsis in Abdominal Operations.—A series of experiments were made 'to determine how far the necessary aseptic conditions had been secured and maintained in abdominal sections' performed by the author. The operating theatre was prepared by scrubbing the walls, floor, and furniture with a 1-1000 sublimate solution. Gelatine plates were then exposed for forty-eight hours; next the operators took a bath in a 1-2000 sublimate solution, and put on sterilised cotton suits. The sponges, silk, instruments, and dressings were soaked in strong carbolic solutions, and every measure taken to ensure thorough asepsis. The sponges and silk ligatures were examined both before and after the operation by placing small pieces of each into sterilised gelatin tubes. The result obtained was as follows: Out of 25 sponges tested before the operation, only 1 was found infected. After being used the sponges were again tested, when it was found that out of 13 sponges tested, 4 were infected. In no case was the silk infected at the beginning of the operation, while out of 20 pieces examined after the operation only 1 was infected. Many of these pieces of silk examined after the operation were taken from the ends of abdominal sutures. The catgut used at the operation was likewise tested, and in only one case did any colonies develop. From these experiments it will be seen how thoroughly aseptic an operation can be made by the use of certain precautions. No statistics of the results of the operations are appended, so that we are unable to judge whether this sterilising of everything used during the operation was the means of bringing about more successful results.

Ashby on the Treatment of Amenorrhœa with Permanganate of Potash.—The author has employed this drug

in amenorrhœa for a considerable time, with results so satisfactory that he now regards it as one of the best emmenagogues we possess. So certain has been its action in his hands that he advises its administration in every case of amenorrhœa, except in the case of young girls, where the affection is probably due to tardy development. He believes the drug, besides acting as a general corrective in anæmia and chlorosis, has a direct stimulating effect upon the uterus, like ergot, savin, and quinine, without possessing the ecbotic properties of these last-named drugs. In the form of a pill he has found that it can always be taken, and does not interfere with digestion.

EDINBURGH MEDICAL JOURNAL.

A Case of Spontaneous Inversion of the Uterus.

By Dr. BREWIS.

The patient was first seen in 1884, when she complained of pain in the left iliac region, menorrhagia, and vomiting some days before menstruation. Physical examination at that time showed that 'the vagina is somewhat lax and large. The vaginal portion of the cervix is small and ante-flected; the body and fundus of the uterus are very marked, enlarged, soft, movable, and in normal position. The uterine sound passes $3\frac{1}{2}$ inches. Neither ovary can be felt.' The diagnosis was fibroid enlargement of the uterus. She was kept under observation for some time and then discharged. The pain and menorrhagia continued off and on until April 1886, when, on taking a walk, the pain and discharge increased, and three days later she experienced sharp stabbing pain and excessive flooding, which were so severe that she was obliged to take to her bed. The hæmorrhagic discharge continued for some time. In July following, while the patient was micturating, 'an oblong-shaped mass' passed from the vagina. The patient described this mass as being 'the size of an orange, hard in consistence, and like flesh to look at.' Shortly after this she was seen by Dr. Brewis, who found the uterus

inverted. The patient was anæsthetised and manual reposition tried, but without success. Hot-water douches with rest and the internal administration of iron, arsenic, and digitalis were tried. After about three weeks of this treatment the patient was suddenly seized with great pain in the abdomen, some vomiting, but no hæmorrhage. After this condition had lasted two days, excessive hæmorrhage came on and lasted two days. When the hæmorrhage had ceased Dr. Brewis examined the patient and found the vagina empty, the cervix had a deep notch on the left side, and the uterine sound passed upwards and forwards $2\frac{1}{2}$ inches. Dr. Brewis remarks that the inversion was evidently due to a fibrous polypus being expelled and dragging the uterus after it, and advocates the method of treatment he adopted as the most rational one.

A Contribution to the Anatomy of the Post-partum Uterus, with special Reference to Placenta Prævia. By D. BERRY HART, M.D., F.R.C.P. Ed.

A section of the anterior uterine wall, to which the placenta was attached, was made, and a diagram made. The specimen was from a multipara, with placenta prævia, who died shortly after delivery. The diagram shows a section of the 'uterine wall $11\frac{1}{4}$ cm. long and 4 cm. thick at its broadest part. The wall tapers to a breadth of 1.8 cm. at this lower part, and the longitudinal muscular bundles become more apparent. Over this portion of the uterine wall the peritoneum is not separated, and placental remains are evident on its cavity aspect. In the lower tapering portion already alluded to a collapsed thick walled vein can be made out—the Kranzvene of the contraction ring. Below the contraction ring is a section of the wall about 3 cm. long, and with an average thickness of 1 cm., the lower uterine segment. . . . The peritoneum is separated from the lower uterine segment, and the placental remains cover its cavity aspect in the upper half. This is a most important and hitherto undemonstrated fact, viz. *the presence of the placenta in the lower*

uterine segment, shown by the evident remains attached to its upper half. Below the lower uterine segment the mucous membrane of the cervix was marked, and protected somewhat from the level of the uterine segment. The effect of uterine retraction is to wrinkle the peritoneum covering the retracting muscle, not to separate it. Separation of the peritoneum occurs when the subjacent tissue increases its area. The separation of the placenta in these cases is brought about by an expansion of the lower uterine segment by the retracting muscle.

Note on the Mechanism of the Separation of the Placenta in the Third Stage of Labour. By D. BERRY HART, M.D., F.R.C.P. ED.

From studying various points in the last paper, 'A Contribution to the Anatomy of the Post-partum Uterus, &c.,' Dr. Berry Hart is led to believe that the placenta in ordinary labours is separated in the same way as in cases of placenta prævia. He concludes : (1) In the third stage of labour there is first separation of the placenta, and then expulsion ; (2) the placenta separates, not from diminution of the placental site, but during the expansion in area of this site after retraction ; (3) when the placental site increases in area after retraction, the placenta does not increase in like proportion, but remains smaller than it. This is owing to the interference of the circulation of the blood in the maternal and foetal parts of the placenta ; (4) the placenta in the third stage of labour separates, therefore, as the placenta in placenta prævia.

Sym on a Case of Vesicular Placenta.—The author briefly reviews the literature of the subject, with the general appearance of the male, giving the symptoms usually complained of. The patient, the subject of Dr. Sym's remarks, was thirty-one years of age, has had three children, the youngest being four years old—one abortion before the birth of the last child. The patient became pregnant in September 1886, and quickened towards the end of January. She soon

noticed that her size was very rapidly increasing, causing her great discomfort. The foetal movements were very strong, and caused her uneasiness. In April last, that is, when she was seven months pregnant, labour-pains began, the membranes soon ruptured, a large amount of fluid escaping, and labour in due course was satisfactorily terminated. The placenta was found to be very large, with numerous cysts in it, while the umbilical cord presented a chain of cysts. In the case before us there are several unusual points which we must notice. The rapid increase in size of the tumour began later than is usual, the third month of pregnancy being the time the increase is first noticed in the majority of cases. As a rule, the foetal movements are obscured, or only very faintly felt, whereas in Dr. Sym's case the movements were so marked as to cause discomfort. There was no discharge of blood or of vesicles during the whole of pregnancy, as we generally find in hydatidiform degeneration of the placenta. A careful description, both naked-eye and microscopical, of the placenta is given, together with a carefully drawn plate. In conclusion, the author points out that the disease is myxomatous, as shown by microscopical examination.

THE LONDON MEDICAL RECORD.

Martin on Tubal Disease.—The author has carefully investigated 287 cases of tubal disease. The majority occurred in women who were in the most active period of their life. There were only 9 cases in women under 20 years of age, and 16 between 40 and 50 years. Out of the total, 220 were married, while 67 were single; 113 had never borne children, 27 had aborted once, while 61 had aborted more than once. In almost every case besides tubal mischief, there was evidence of disease of the other pelvic organs, *e.g.*, endometritis, chronic pelvic peritonitis, traces of old parametritis, &c., the most constant accompaniment being endometritis or metritis. In no case was there any evidence to show that the tubal disease was primary; on the contrary,

everything pointed to the disease having spread from the neighbouring organs. The disease never spread from the pelvic peritoneum up the tubes. In 91 cases both tubes were diseased, in 58 the right only, in 138 the left. Amongst the varieties of salpingitis described by Martin, we find (1) endosalpingitis or salpingitis catarrhalis; (2) salpingitis interstitialis; (3) salpingitis follicularis. Salpingitis of puerperal or gonorrhœal origin is due to the presence of micro-organisms, and invariably gives rise to pyosalpinx.

Tubercular salpingitis is very liable to communicate tuberculous changes to the neighbouring organs. The abdominal end of the Fallopian tube becomes closed owing to the fimbriæ becoming united, either to each other or to some neighbouring organ; the uterine end is readily obstructed.

With regard to treatment, the author advises rest and general treatment in the earlier and simpler forms of the disease, though septic cases are unfavourable ones to deal with. He found that only about one-fifth of all the cases under his observation required operative treatment.

Jani on the Existence of Tubercle Bacilli in the healthy Genital Apparatus in cases of Pulmonary Phthisis.—The author undertook a series of observations to determine, if possible, whether the ovum at the time of fecundation could become infected with tubercle bacilli. The observations were first made upon men suffering from pulmonary disease, but whose genital tract was healthy. This set of observations gave negative results. Next the testicle and prostate were examined, and in five cases out of eight tubercle bacilli were found. The fluid obtained by scraping the cut surface of the testicle and prostate were examined and found to contain numerous bacilli. From these observations the author concludes that the ovum may be infected by the semen of a phthisical patient; but whether the ovum thus infected is capable of further development is open to doubt. The question, 'Can the bacilli reach the fœtus through the placenta?' is answered in the negative, as the author believes the bacilli are arrested at the endothelial layer.

Myschkin on a Twin Ovum.—A female, 22 years of age, aborted at the second month of pregnancy. The ovum, 2·75 to 3·0 cm. in diameter, was covered with shaggy processes, and contained two separate embryos developed from one ovum in a common amniotic sac, with only one chorionic membrane, with two umbilical cords provided with an omphalo-mesenteric duct and an allantois.

Croix on Hydatid of the Abdominal Wall.—The patient was aged 61. There was a small tumour in the umbilical region, the size of a walnut, situated about three quarters of an inch to the right of the umbilicus. The diagnosis made was umbilical hernia, but at a *post-mortem* it proved to be a subcutaneous monocular hydatid cyst, with numerous daughter-cysts. No hydatids were found elsewhere in the body.

THE BIRMINGHAM MEDICAL REVIEW.

Acute Primary Peritonitis.

By ARTHUR FOXWELL, B.A., M.B. Cantab.

The author divides acute peritonitis into four varieties: (1) primary; (2) that due to morbid states of the blood; (3) that set up by extension from other organs; (4) internal traumatism. The first variety is the one specially dwelt on by the author. Various medical authorities are quoted to show that acute peritonitis as a primary disease is quite possible, while others are mentioned who rather doubt it. The author believes acute primary peritonitis to be 'the local expression of a constitutional malady.' Among the causes of this disease we find poisoning by sewer gas and chill, this last being regarded by the author as the commonest of all. When the chill is slight the attack is uncomplicated, but if severe we find other organs involved. Several instances are mentioned by the author, one of which we will briefly reproduce. Sarah Thomas, 11 years of age, was seized five days before her admission with severe pain in abdomen; straining at stool increased her pain and produced no motion. Diarrhœa set

in. On the second and third days she vomited. Temperature on admission was 103° to 104° , breathing quick and thoracic, cheeks flushed, pulse small and hard, tongue coated with thick yellow fur, abdomen hard and resistant. Patient died on the eleventh day of her illness. Autopsy: Lungs showed slight hypostatic congestion of both lower lobes; liver pale and fatty. There was general purulent peritonitis, much yellow lymph, with several ounces of pus; ovaries and Fallopian tubes were normal, though matted with lymph—all other organs perfectly normal.

Cases similar to the above are certainly rare, but they do from time to time present themselves to our observation. Peritonitis is frequently secondary to renal disease, 'but granular kidneys are no more the cause of peritonitis than is an enfeebled heart in pneumonia.' The peritonitis occurs in patients of enfeebled constitution suffering from Bright's disease.

On a Series of Twenty-four Consecutive Abdominal Sections.

By JOHN W. TAYLOR, F.R.C.S.

Though the number of abdominal sections is small when compared with lists published by some other operators, the diseases for which the abdomen was opened are varied. A brief survey of these cases of interest follows:—

Case I.—Patient was 15 years of age, suffering from acute hydronephrosis, with subsequent rupture of the cyst. The abdominal cavity was opened, the peritoneum cleaned, and the cyst drained. Recovery. Case IV.—Patient was 32 years, married, suffering from chronic pelvic peritonitis. Treatment consisted in the incomplete removal of appendages. Recovery.

Cases V., VI., VIII., XIV., XXI., XXIII. were ovariectomies for cystoma of the ovary. Case VIII. was complicated, the pedicle of the cyst being twisted, while the uterus contained a fibro-myoma. Both ovaries and tubes were removed in this case. Case XXI. was a dermoid cyst of the ovary,

which had taken on a suppurative action shortly after a confinement four months previous to the operation. The author warns operators to bear this complication in mind, as dermoids frequently take on active growth or undergo suppuration after an injury. All these cases recovered.

Cases VII., X., XII., XVIII. were cases of hydro- or pyosalpinx, and in all the appendages were removed with success. In one of these the contents had become caseous. The appendages were also removed for retroflexion with prolapse of the ovary and sterility of 16 years' duration in one case, for myoma of the uterus in two cases, and for chronic pelvic peritonitis with a cyst of the left ovary in one case.

Case XI. was a patient 28 years of age, married, in whom papilloma of the peritoneum was diagnosed. The abdomen was opened, and a drainage-tube inserted.

Case XV. was a cyst of the broad ligament, which was removed by enucleation.

Case XVII. was an abscess of the ovary, which ruptured and set up acute peritonitis; the ovary was removed, and the patient made a good recovery.

Case XIX.—The patient was 38 years of age, married. Rupture of a cyst, probably of the Fallopian tube, was diagnosed. The abdomen was opened, and the peritoneal cavity was found to contain a 'lot of dirty fluid.' The peritoneum was cleansed and drained, the patient's recovery being rapid. The author is to be congratulated on his success of twenty-four abdominal sections with only one death, which occurred in a man who was operated on for intestinal obstruction due to a tumour of the colon.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Dr. Henry T. Byford showed tents made of the compressed bark of the slippery-elm tree (*Ulmus fulva*), which are useful substitutes for the tupelo, sea-tangle, and sponge tents. Its advantages are: (1) Its rapidity of action; (2) on being moistened a slimy substance exudes, which protects the

mucous membrane against injury ; (3) medicated substances can be applied by means of these tents ; (4) their action is more rapid and powerful than the ordinary tents ; (5) they may be used as a substitute for an intra-uterine stem.

Discussion.—Dr. Reeves Jackson had used these tents for many years with success, but his experience had led him to the conclusion that their dilating power was not so great as other tents. In combination with a sponge tent the best action of the slippery-elm tent is obtained.

Dr. Reeves Jackson exhibited two dermoid cysts of the ovary.

Case I.—The patient was 40 years of age ; had been married twenty years ; had one child eighteen years ago, no other pregnancy. Always had good health until three months and a half ago, when she had a chill and much pelvic pain. She became thin and had a careworn look. Menstruation appeared regularly and without pain. A swelling was now noticed by her in the abdomen. On examination the abdominal walls were soft ; no tenderness present. There was a feeling of doubtful fluctuation with dulness at the sides, also in the right iliac region. The rest of the abdomen was resonant on percussion. She died next day. At the autopsy there was found acute peritonitis and a ‘partially collapsed cyst, which still held about one pint of pus,’ and from the opening through which the pus came there protruded a few hairs.’ There were also found some rudimentary teeth. The source of the peritonitis was evidently a ruptured dermoid cyst.

Case II.—Mrs. B., aged 35 years ; married fourteen years ; has had two children, aged respectively 11 and 7 years, and two abortions, the last two months ago.

Nine months ago patient noticed a swelling the size of an orange in the right iliac region. ‘It was smooth, soft, movable, and insensitive,’ and has gradually increased in size until a few days ago, since which time it has rapidly increased, so that before the operation it filled the lower abdomen up to the umbilicus.

The tumour was composed of two cysts—a large one containing serum, and a small inner cyst containing bone and hair. An interesting point in connection with this tumour was that it contained two differently coloured hairs—one auburn and curly, the other long, straight, and of an entirely different colour.

Discussion.—Dr. Christian Fenger called attention to the two theories of the origin of dermoid cysts. According to Heschl these cysts owe their origin to isolated patches of epiblastic tissue which during their embryonic development become displaced into or surrounded by mesoblastic tissue. This, however, does not explain the origin of dermoid cysts in the testicle and ovary.

His has shown that the internal genital organs are developed from a part of the embryo—‘the Axenstrang’—in which all the germinal layers are included, so that the presence of dermoid cysts in the ovaries and testicles are more easily accounted for.

Waldeyes has adopted the theory expressed by older authorities that ‘epithelial cells of the ovary, capable of transformation into the ovum with all its formative possibilities, may enter into an irregular formative activity and produce a dermoid cyst.’ While this theory explains dermoid cysts in some parts of the body, it does not explain their presence in the ovary.

A dermoid cyst is always single, though sometimes more than one is found in the same ovary, their presence being explained by the fact that there has been more than one embryonal matrix. Sometimes it appears as if the cyst were a multiple one; but examination will show that there is a combination of dermoid with a proliferating cystoma, or very rarely a dermoid cyst with multiple colloid degeneration of the stroma of the wall.

Dr. Fenger then showed some dermoid cysts presenting interesting points not shown in Dr. Jackson’s tumours. In the first were teeth inserted into the wall of the cyst or into bony plates in the walls. Generally the teeth are only few

in number, but occasionally many are found. Thus Schnabel has seen over 100 in one cyst, and Autenrieth saw one case in which 300 were removed from the cyst-wall and as many more remained. In the second case the dermoid cyst contained 'three or four gallons of a brownish fluid, in which floated hundreds of thousands of round, yellowish-white small bodies, the size of a hemp seed up to a pea.' They were soft, the consistence of butter, and microscopical, consist of amorphous fat with pavement epithelial cells. Sometimes these bodies are composed of amorphous fat arranged concentrically round cholesterine crystals as a nucleus.

In the next case the cyst was transparent and a trocar was used, as a dermoid cyst was not suspected. The trocar was, however, soon stopped up by fat and hair.

We may also have carcinoma, sarcoma, and myoma of a dermoid cyst, and Doran has seen malignant tumours of the abdominal cavity follow the removal of dermoid cysts. In the third case brought before the Society by Dr. Fenger there was a 'large black mole' 3 inches in diameter, which microscopical examination showed was similar in structure to the ordinary pigmented mole. Further, there was a papilloma, the size of a pea, 'surrounded by a thick wrinkled skin beset with hairs.' In connection with this part of the subject it may be mentioned that moles often develop into sarcomas, and papillomas for years benign may suddenly become active and take on a malignant growth.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Placenta Prævia.—Dr. Longaker, who submitted some cases of this serious condition, and eulogised the treatment by bimanual version, which was introduced by Braxton Hicks. By adopting this method Behm, Hoffmeier, and Lomer had saved ninety-two out of ninety-three patients under their personal care. He wished to emphasise some particulars in the treatment by quoting Lomer: (1) Turn by the bimanual

method as soon as possible. (2) Pull down the leg and tampon with it and the breech of the child the ruptured vessels of the placenta. (3) Do not extract the child then. (4) Do away with the plug as much as possible. (5) Do not wait to turn until the cervix and os are sufficiently dilated to allow the hand to pass. (6) Turn as soon as you can pass one or two fingers through the cervix. (7) Use chloroform freely. (8) Rupture membranes at margin of placenta. (9) The rest of the treatment is expectant.

Dr. Longaker also related a case of hydramnion with malformation of the foetus. The amount of hydramniotic fluid drawn off was over a gallon. The foetus was six and a half months, was 34 cm. long and 1500 grms. in weight. On the neck was a tumour which involved the anterior and lateral aspects, and extended from the inferior maxilla to the ensiform cartilage. The pleural, pericardial, and peritoneal cavities contained serum. The heart was greatly hypertrophied. Kidneys normal. The placenta was thrown away before it was examined. The large vessels to the head passed through the tumour. In this case the hydramnion was evidently of foetal origin, and was due to hypertrophy of the heart, which was caused by the pressure of the tumour on the vessels of the neck.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 5, 1887.

What are the Chief Factors which determine the Differences which exist in the Form of the Male and Female Pelves?—Mr. Arbuthnot Lane read a paper on this subject. The writer criticised the supposition that many if not all of the differences in the form of the male and female pelvis were due to force exerted by the femora and sacrum upon the innominate bones. He considered that the conditions of the thorax and pelvis were exactly analogous in the two sexes. He thought the factor which determined the altered form of the female thorax from the male thorax (which he

regarded as the original type) was the additional function performed by the former of accommodating the fœtus during the later months of pregnancy. In the case of the pelvis, that of the female performed one function in addition to those performed by the male pelvis, namely, the support and transmission of the fœtus, and he regarded this as the sole factor which determined the variations in form in the two sexes. He thought there was a fallacy in arguing from the manner in which certain forces produced changes in the pelves of diseased female subjects during the lifetime of a single individual, that the same forces acting upon a healthy female subject determined that peculiarity in the form of the pelvis. He discussed the two most common variations in the form of the male pelvis, and their probable cause. He considered that the pressure exerted by the fœtus, represented as a developmental factor, prevented the occurrence of such variations in the female subject. He then alluded to pressure changes due to carrying loads upon or in front of the trunk, and from premisses gathered from these several points he came to the conclusion that the sole determining factor of the variations in the form of the male and female pelves was, as in the case of the thorax, the force or pressure exerted by the fœtus.—Dr. Herman agreed with Mr. Lane in holding that the form of the pelvis was due to inheritance, that is, to influences acting on many generations of ancestors, and more than to forces acting during the life of an individual. But he thought the way in which the shape of the pelvis was modified in transmission through many generations was mainly this: that women with well-shaped pelves were able to bear large, strong children, likely to survive, and to inherit and transmit that type of pelvis, while women with small pelves produced either still-born children or small, weak children, not so likely to survive, and so a stock with small pelves tended to become few. If Dr. Herman interpreted literally Mr. Lane's view of the way in which the shape of the pelvis was modified, namely, directly by the pressure of the head during labour, he could not agree with him. The head only pressed

on the bones bounding the pelvic cavity during the second stage of labour. This stage on the average lasted less than two hours. Supposing the individual to have ten children (which was the largest estimate of the average), this made twenty hours' pressure during the whole of life ; and usually no part of this pressure was exerted till after ossification was complete. He could not attribute any applicable influence on the shape of the pelvis to pressure so brief and intermittent, exerted on hard, fully ossified bones.—Dr. Playfair said that Mr. Lane seemed to assume that pressure was generally described by authors on midwifery as determining the shape and dimensions of the female pelvis. He could recollect no modern textbook in which such a reason was given, the generally received explanation being that the increased size of the female pelvis was caused by the fact of the reproductive organs being contained within the pelvic cavity in women, and not external to it, as in the male. It seemed very probable that a process of evolution might in time produce pelvic changes from constant factors, but not from accidental and occasional circumstances, such as the presence of a *fœtus in utero*.—Dr. Galabin had never understood that the mechanical effects of the body-weight and muscular action were supposed to bring about the characters special to the female pelvis, but that the peculiarities of the female had been ascribed to the forces of development or the presence of the genital organs in the pelvis. If any peculiarity in an individual of one sex tended to be transmitted to the same sex more than another, he thought it might be capable of proof in the breeding of animals. Dr. Galabin thought that any special character, as size, colour, or strength, was transmitted to sons and daughters equally. The principle would be one of great interest as regards the future of our race, if it were established. Strong-minded women were wont to ascribe any slight inferiority of women's intellect, which others might admit to the fact that women have been kept in a kind of slavery for many generations. He had always thought this was a fallacious argument, and that if women had in any way

suffered, their sons would be the losers as well as their daughters. If Mr. Lane's principle was true, the case was altogether different, and if women exercised sufficiently their intellects and their bodily powers, they might in course of generations not only wipe out any slight mental inferiority, but come to equal or even surpass the men both in average structure and muscular strength.—Dr. Matthews Duncan had greatly admired Mr. Lane's former papers on the skeleton, and took special interest in the explanation of the changes of the pelvic joints in the end of pregnancy by mechanical influences.—Dr. Champneys wished Mr. Lane to name any eminent obstetric writers who assigned sexual peculiarities to causes common to the sexes. He had never met with such a statement. The effect of pressure on respiration cannot begin before the sixth month, which leaves three months in each pregnancy, or thirty months in ten pregnancies, and against this we have to put the remainder of the whole of a lifetime, of, say, sixty years. The production of alterations in the skeleton during pregnancy was one thing, and the alteration of the skeleton by laborious occupations was quite another thing.—Mr. Lane, in reply, was sorry that it would be impossible to attempt to answer offhand the many questions and criticisms, which would necessitate a complex and lengthy reply, but preferred to base his case on the material contained in the paper.

On Tonic Uterine Contraction, without Completeness of Retraction.—Dr. J. Matthews Duncan read a paper, in which he called attention to the occurrence of a rigid spastic condition of the uterus, especially just after delivery, without complete retraction, and while the uterus had no content opposing complete retraction or closing. In this state the hard uterus had a globose cavity. He more particularly called attention to the occurrence of hæmorrhage from the placental site while the uterus was in this state of firm spastic contraction with incomplete retraction, and mentioned cases. He regarded this hitherto unknown or unrecognised condition as probably affording an explanation of the well-

known difference of opinion among obstetric authorities, some asserting the occasional occurrence of hæmorrhage after delivery from a hard contracted uterus, some denying it. A similar condition, he believed, occurred very rarely in the unimpregnated uterus.—Dr. Herman had published a case in the ‘Lancet,’ p. 1110, 1882, to illustrate the practice of injection of fluid into a vein. This was a case of secondary hæmorrhage coming on nine days after delivery. When seen by Dr. Herman the uterine cavity was globose, and large enough to contain a fœtal head, and its walls were hard and rigid. The interior was swabbed with solution of perchloride of iron, and this was followed by thorough contraction of the uterus and arrest of hæmorrhage.—Dr. Horrocks asked if the cervix as well as the fundus was affected by the tonic contraction, because, in regard to cavities such as the uterine and vesical, when the detrusor contracted the sphincter dilated. In Dr. Duncan’s case, though the contraction of the uterus was tonic it was incomplete, leaving an actual cavity. He mentioned a case in his own practice where bleeding came on ten days after labour. The fundus was contracted and hard, and yet the cavity not closed.—Dr. Galabin was specially interested in hearing this paper, because he had thought that in a former paper Dr. Duncan had not distinguished a sufficient number of conditions in which the uterine wall might possibly be. He had understood him to identify that state of continuous action or tetany of the uterus with retraction. Dr. Galabin considered it was quite different and more analogous to the *post-partum* condition now described. Retraction was a normal sequence of contraction. Continuous action was abnormal, and might be even antagonistic to retraction, for after such continuous action the uterus was liable to *post-partum* hæmorrhage. He remembered a case of cancer of the whole cervix, in which the uterus passed into a state of continuous action without any rhythmical pains having occurred, and the pulse became accelerated as in prolonged labour. Cæsarean section was performed. The uterus did not retract; hæmorrhage took

place from the placental site and was only stopped by perchloride of iron. He thought such a condition might have a distinct analogy to rigor mortis. In rigor mortis a muscle was rigid, as if strongly contracted, but if the tendons were divided the muscle did not retract in the least. The condition was really one of stiffening.—Dr. Cleveland said he had been sometimes puzzled to account for bleeding after natural labour where the uterus seemed of natural size and contracted ; but as these cases occurred in delicate women, he attributed them to the effects of a hæmorrhagic diathesis. He was convinced that in earlier experience his anxiety to remove clots from the uterus might have been carried too far. He now believed that where bleeding resulted from imperfect coagulation it was necessary for a clot of some size to remain within the uterus.—Dr. Champneys thought that these cases threw some light on the vexed question of the action of ergot, which in some cases seemed to produce tetanus of the uterus without reducing its size or producing retraction.

Case of Pregnancy complicated by Secondary Hepatic Cancer.—Dr. John Phillips read a paper on this subject. The patient, aged 40, mother of nine children, was operated upon in November, 1883, for scirrhus of the right mamma. Six months afterwards she was seen by the author for considerable pain in her right side. She was then six months pregnant. The pain increased in spite of all remedies, and her condition became so grave that, after consultation, induction of labour was performed. An easy labour followed, and, on the uterine tumour lessening, the liver was found enlarged and covered with umbilical bosses, probably of a malignant nature. Jaundice and ascites appeared, and she died comatose three days after her confinement. The author made a few remarks as to the treatment in these cases, confining his attention more particularly to the propriety of induction of premature labour. He also quoted one other case of a similar character.—Dr. Herman had read a paper before the Society ('Trans.' vol. xx.) on the complication of pregnancy with cancer of the genital canal. In that paper

he had discussed the influence of pregnancy on cancer of the genital organs, and had said that, from the greatly increased blood-supply to the breast and uterus during pregnancy, we should expect that cancer of those parts would grow quicker if the patient became pregnant; and he had quoted a case which showed that this was so. A colleague had since communicated to him another case which showed the same thing. Dr. Phillips had referred to authors who were of opinion that pregnancy retarded or suspended the growth of mammary cancer. Dr. Herman believed this was an opinion not supported by observation. He had shown that in cancer of the uterus pregnancy frequently ended in the birth of a decomposed fœtus, due to the cancerous cachexia causing the intra-uterine death of the child. This was a strong reason for bringing on labour prematurely, as Dr. Phillips had done. Dr. Phillips had spoken of Cæsarean section being dangerous for the child. He doubtless based the opinion on the fact that the statistics of this operation showed a high infantile mortality. Dr. Herman thought statistics were here misleading. The risk which the child incurred in Cæsarean section was almost nothing, and the high death-rate of the children arose from such circumstances as too late performance of the operation, want of attention to the child at the time of operation, etc. If the operation were done when the child was alive, and with proper precautions for its safety, there was no reason why its life should be lost.—Dr. John Phillips, in reply, thought that induction of premature labour was preferable to Cæsarean section.

Hæmatocele Successfully Treated by Operation.—Dr. John Phillips related the case of a young married woman who was attacked during menstruation with rheumatic symptoms. There was an aortic systolic murmur. Metrorrhagia continued for a month. A tumour the size of a Tangerine orange was found in Douglas's pouch, and after seven days a large swelling had formed in the left broad ligament, pushing up the uterus to the right, and producing a considerable abdominal swelling. The tumour descended towards the

rectum, and in consequence of the precarious condition of the patient aspiration was performed with no result. The next day the cyst was opened under ether, per vaginam, with Pacquelin's cauter, and a large amount of blood-clot let out. A Keith's ovarian drainage-tube was inserted. The tumour rapidly subsided, and the patient made a good recovery.—Dr. Galabin thought the case of interest, as bearing upon the question when vaginal section and when abdominal section should be chosen, if it became necessary to operate on a hæmatocele. He had never intentionally opened a hæmatocele; he had twice made an exploratory abdominal section with good result in cases which turned out to be hæmatocele, not dependent on extra-uterine fœtation. In both cases there was an elastic tumour reaching to the umbilicus. In both the peritoneal cavity was washed out with hot water, the contents of the hæmatocele having in one of them been in an intensely fœtid condition. In one of these cases double pyo-salpinx was found and removed, and the advantage of abdominal section was its allowing the removal of sources of mischief.—Dr. Herman thought that in cases in which the formation of hæmatocele was followed by gradual increasing pyrexia, the practice which he followed, namely, to let out the blood, was the right one. The majority of cases of hæmatocele got quite well under expectant treatment.—Dr. Amand Routh thought Dr. Phillips's practice was the correct one. An incision into the tumour, per vaginam, was less dangerous than an abdominal section, and in the former the peritoneal cavity was not opened, as the bulging downwards of Douglas's pouch proved that adhesive peritonitis had closed this above.—Dr. Champneys said that where it was necessary to open a hæmatocele it was certainly best to open it freely and drain, and use antiseptic precautions. Much of the bad results in the past were, he thought, due to aspiration without free opening and drainage, septic matters being introduced into the sac without free escape.

ACADEMY OF MEDICINE IN IRELAND:

OBSTETRICAL SECTION.

FRIDAY, JUNE 10, 1887.

Ovarian Tumour.—The President exhibited an ovarian tumour which he had removed from a woman, aged 40 years. Twelve months ago she attended the Rotunda Hospital, and was advised to submit to an operation, but would not do so, and left. In June she came back to the hospital, being swollen to an enormous size, and unable to walk. On examination it was obvious that there had been a large effusion into the peritoneum, and the tumour could hardly be made out. An aspirating needle drew off only a very small quantity of fluid, as the needle was stopped by particles of thick, jelly-like matter. As it was obvious that the cyst opened into the abdominal cavity, it was thought better to operate at once. The abdominal cavity was full of viscid stuff, and it was found that the tumour had burst at one side. The walls were so thin that it broke down, and the whole abdomen was filled with the viscid, jelly-like mass, which it was very difficult to get out of the abdominal cavity. The cavity was thoroughly washed out with a weak carbolic solution. The distension had been so great that the whole vagina was completely prolapsed, and could not be replaced when she lay in bed.—Dr. Kidd said he had seen three or four cases in which tumours had burst into the cavity of the peritoneum, and the majority of them did not turn out satisfactorily.

Report of Rotunda Hospital.—Dr. John L. Lane then submitted the Report of the Rotunda Hospital for the three years ending November 3, 1886.—The President said that those who remembered former reports of the Rotunda would perceive that the mortality recorded in the present report was twice as great in proportion as it was formerly. There had been in the last period twelve or fourteen deaths from all causes, as compared with six in the preceding one. In the

last period, with which the report dwelt, every single death was counted that could be traced to the puerperal state or anything connected, extending to so far as six or seven weeks after delivery, and including a case of chronic pyæmia in a woman who left the hospital and came back and died in it. Another source of mortality was the extern department, and the course which had been taken by the assistant master and clinical clerk of bringing into the hospital every woman that they thought had a better chance of her life there than at home, and who was willing to come in. There had been only one acute case of septicæmia, in which the patient died within twenty-three or twenty-four hours after the attack. A woman who had a very foetid discharge lay in a bed next to one who had had a face presentation; the latter was attacked by septicæmia; and the gentleman who attended the two cases afterwards recollected that he did not wash his hands after leaving the first and before he went to the second. The fact that the septicæmia had not been so virulent as in former times was favourable; at the same time, they had had eighteen deaths from septicæmia, and not only that, but there had been more deaths from it last year than in the year before. He had been unable to make out the cause of this, but Dr. Lane had referred to what was one source of weakness, namely, the napkins. During the first year of their use these were comparatively fresh, but if they were used in septic cases and not afterwards boiled and thoroughly washed they were a great source of danger. He would be glad if he could see his way to substituting some cheap antiseptic applications to the vulva for the first twenty-four hours, and afterwards he would let the discharge take place into the sheets and have these changed. In private cases sanitary towels could be used, which should be afterwards burned. Last year 86 cases out of 100 went through a perfectly normal convalescence, and without any rise of temperature save what was purely physiological. The lowest percentage in the continental hospitals was in the St. Petersburg Hospital, in which there were 2,854 births, with 72 per cent. of absolutely

normal convalescences, the temperature never going above 100·4° night or morning. The mortality of forceps cases was tolerably light—33 per cent.—and in those cases the forceps had been only used after absolute indications of the necessity for it, such as stoppage of labour, acute pulse, high temperature, or vomiting. The exact process of the infection that took place in cases of septicæmia and pyæmia was no doubt still an enigma. As for clothes, or the air of the hospital, or anything of that sort giving puerperal fever, he had not the slightest idea that such a thing was possible. Nor did he think that erysipelas or scarlatina produced puerperal fever. Professor Schröder, of Berlin, had shown that erysipelas had nothing to do with puerperal fever. He considered that as long as a single woman died, going through the hospital, from septicæmia that could be avoided, they should spare no efforts to prevent such mortality.—Dr. Kidd said Dr. Lane was to be congratulated on this report, which was a satisfactory one in every respect. The most important feature in it was the record of patients followed for five or six weeks after they had left the hospital. It was the fair and right way of estimating the mortality of puerperal conditions.—Dr. Byrne, Dr. Home, and Dr. Doyle took part in the discussion, and the President replied.

NOTES.

Dr. Robert Barnes was elected an Honorary Fellow of the King and Queen's College of Physicians at the meeting of the British Medical Association at Dublin in August.

We regret to announce the death of Dr. Gustavus Murray, which took place at his residence in Great Cumberland Place on August 7 last. He was Obstetric Physician to the Great Northern Central Hospital, and was formerly Physician to the British Lying-in Hospital.

We regret to have to record the death, on November 7, of Dr. Robert Greenhalgh, at his residence, 35, Cavendish Square. He was for many years Obstetric Physician to St. Bartholomew's Hospital. For some years past he had retired from practice on account of frequent attacks of asthma.

Dr. Gervis has been appointed Consulting Obstetric Physician to St. Thomas' Hospital.

It is with much pleasure that we have to record the fact that Dr. Bantock, the distinguished President of our Society, was invited by the American Gynæcological Society to read a paper at one of its meetings. Dr. Bantock was further honoured by several American gynæcologists with a request to operate on some of their patients, so as to illustrate his method of performing hysterectomy in cases of uterine myomata. At Philadelphia he operated on a young negress for hydro-salpinx. At the Women's Hospital in New York he performed a hysterectomy. At Chicago Dr. Bantock performed a double ovariectomy in St. Luke's Hospital. Commenting on these cases the 'British Medical Journal' says: 'When we bear in mind

the reception of Sir Joseph Lister at Buda-Pesth a few years ago, and the yet more practical compliment recently paid to Sir Spencer Wells in Austria, and to Dr. Bantock across the Atlantic, we must feel how strongly the influence of British Surgery is felt, and the merits of our surgeons recognised, beyond the dominions of Queen Victoria.'

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THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, NOVEMBER 9, 1887.

G. GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT : 27 Fellows, 3 Visitors.

The following was elected a Fellow of the Society :—Dr. G. Cockburn Smith.

The following were proposed for election :—Dr. Albert Edward Morison, Hartlepool ; Dr. Dugald Sinclair, Lews, Scotland ; Dr. David Smart, Liverpool.

The PRESIDENT showed the following two specimens :—

1. A large uterus in a case of hydramnios with twins removed from a woman æt. 32, the mother of 5 children. He was called to see the patient, on July 19, by Dr. Dingle. The history given by the patient was that she had been very well until within about a week or two, that she had rapidly increased in that time, and that she had not menstruated for over 3 months. The abdomen was very much distended, there was free fluctuation over the greater part, and the legs were œdematous. The cervix was somewhat soft and the

mammary areola enlarged and darkened. The diagnosis was a rapidly growing ovarian tumour with pregnancy of between 3 and 4 months. Arrangements were made as quickly as possible, and he operated on her 4 days later, assisted by Dr. Dingle. By that time she had still further increased in size, and the œdema had extended to the hypogastrium. On opening the abdomen he at once perceived that the tumour was uterine and not ovarian, and he concluded that he had to deal with a case of hydramnios. Three courses now presented themselves, viz., whether to close the abdomen and induce premature labour, or to tap the uterus with an aspirator, close the abdomen, and await the issue of events, or to remove the whole organ by supra-vaginal hysterectomy. He chose the last, as offering the best chance of success. In opening the uterus over 13 pints of fluid were removed from the amniotic sac, and a foetus came into view. This was extracted without dividing the cord, and another was seen but was not removed. The whole organ was now turned out and secured, in his usual way, along with the ovaries by means of his *Serre Nœud*.

The patient made an excellent recovery, and he had to thank Dr. Dingle for his careful and skilful attention to her during her convalescence.

The value of the specimen was enhanced by the fact that he was able to append a report upon it by Mr. Bland Sutton.

Report on Dr. Bantock's Specimen of Uterus with Placenta and Twins. By Mr. BLAND SUTTON.

The specimen consists of the body and fundus of a uterus with its appendages. It contains a placenta and two female foetuses of about the fourth month of gestation.

The anterior wall of the uterus is excessively thickened, and measured when recent two inches, whereas the posterior wall is only half-an-inch in thickness. This abnormal thickening is the result of an overgrowth of the uterine wall involving chiefly its anterior and right lateral aspects, and ex-



FIG. 1.—The placenta with the twins attached.—The ovary with the corpus luteum, tending along the corresponding ligamentum teres, which has a diameter of three-quarters of an inch. The condition is

best described as a diffuse fibro-myoma involving the anterior wall of the uterus.

The left ovary contains a corpus luteum of pregnancy, and none could be found in the right ovary. From this it is fair to infer that the two embryos originated from a single ovum. The view is further confirmed by the fact that the two fœtuses had one placenta between them, were contained in a common amniotic sac, and are of the same sex.

This is peculiarly interesting, as it tends to confirm the statement made in my paper on Parasitic Fœtuses, published in Part IX. of the '*British Gynæcological Journal*,' to the effect that 'it is not improbable that when twins occur of the same sex they are the product of a single ovum.'¹ Indeed the case may from this point of view be regarded in the light of an experiment.

An examination of the right Fallopian tube is sufficient to convince anyone that an ovum from the corresponding ovary could not have found its way into the uterus, as the tube is impervious.

The fœtus marked A in fig. 1 is decidedly smaller than its companion. This is explained by the circumstance that the cord has twisted upon itself three or four times, thereby impeding free circulation and hindering the nutrition of the fœtus. Had this continued, the fœtus would probably have become mummified.

The PRESIDENT said on the question raised by Mr. Sutton as to the origin of the twins he would point out that a case of his own settled for ever one thing, viz., that twins of both sexes may come from one ovary. Some years ago, viz., on May 22, 1877, he removed a right ovarian tumour from a married woman, who gave birth to twins on April 26, 1879, a boy and a girl. Whether they both came from one Graafian follicle could not be determined; but as he had never, according to his recollection, read of two corpora lutea being

¹ *Gynæcological Journal*, vol. iii. Part IX. page 172.

found in one ovary (of the same age) he was inclined to the belief that the Graafian follicle contained two ova. He saw no improbability in this view.

2. The second specimen was a remarkable double tumour connected with the uterus, but not actually involving the body, which he removed from a married woman æt. 39, and the mother of 4 children, youngest 4, on October 12. The operation was one of great difficulty, from the fact that the broad ligaments were involved. On the left side the tumour dipped down between the layers of the broad ligament below the normal level of the os. (In this instance the os was drawn up so high in the vagina that it could only be reached by the tip of the finger.) The reflection of the peritoneum from the tumour to the parietes was above the level of the crest of the ilium. The peritoneal covering was divided about 3 inches above the line of reflection and the mass was enucleated. The remaining cavity was obliterated by 4 ligatures through the base and then by turning in the peritoneal flaps and stitching the two folds (peritoneum to peritoneum) by a continuous suture. The right tumour dipped down to a less extent, and after its enucleation the loose peritoneum was secured along with the uterus and both ovaries in the loop of the Serre Nœud. The patient has made a most satisfactory recovery, the temperature never reaching 100° though complicated by an attack of acute mania, coming on about the 15th day, characterised by incessant talking without any violence, and which ceased in the course of a week. He was not unprepared for this, as the patient was delivered of her first child in an asylum in which she had been confined for 8 months. This was the first case in which he used the new Serre Nœud (Delta Metal). He had, however, not then procured the wire of the same metal. But he had already seen enough to satisfy him as to the advantages of the metal.

In this case also he had the satisfaction of presenting a report on the specimen by Mr. Bland Sutton, which is as follows :—

Report on Dr. Bantock's Specimen of Bilateral Tumour of the Broad Ligament. By Mr. BLAND SUTTON.

The specimen consists of a uterus and its appendages, associated with two large tumours. When first removed the parts weighed 11½lbs.

On reference to the drawing, which accompanies the report, it will be seen that the uterus is of normal size and shape; the Fallopian tubes, ovaries, and round ligaments are spread out and stretched by the tumours. These parts are normal, except that near the fimbriated end of the right tube there were a few small cysts.

Lying between the folds of the right broad ligament we find an oval-shaped tumour, measuring nine inches in its long, and five inches in its short, axis. At one spot this tumour approached, and was attached to, the right side of the fundus uteri. A portion of this was broken off with the ovary when it came into my possession.

The left broad ligament is occupied by a similar but much larger tumour, measuring eight inches across the cut surface and thirteen inches in length. A nodule, projecting from the tumour, has forced its way between the layers of the meso-salpinx and separated the ovary from the Fallopian tube. A large tuberous portion was adherent to the lower part of the main mass. Externally the tumours were covered by a dense fibrous capsule. On dividing the larger tumour its centre was found to be occupied by an area of softening, and was as succulent as an orange. The limits of this degenerate portion were sharply indicated by a wall of calcified tissue, in some places a quarter-of-an-inch in thickness. Smaller tracts of softening dotted the surface of the section. The periphery of the tumour was firm, and in some places as resistant as a uterine myoma. The tumour in the right ligament presented a few tough nodules. Under the microscope sections from the periphery of the tumour exhibited the familiar arrangement of dense fibroid tissue, and in some

places a whorled disposition of the fibres was obvious. The softer parts of the mass were made up of spindle-cells, whilst

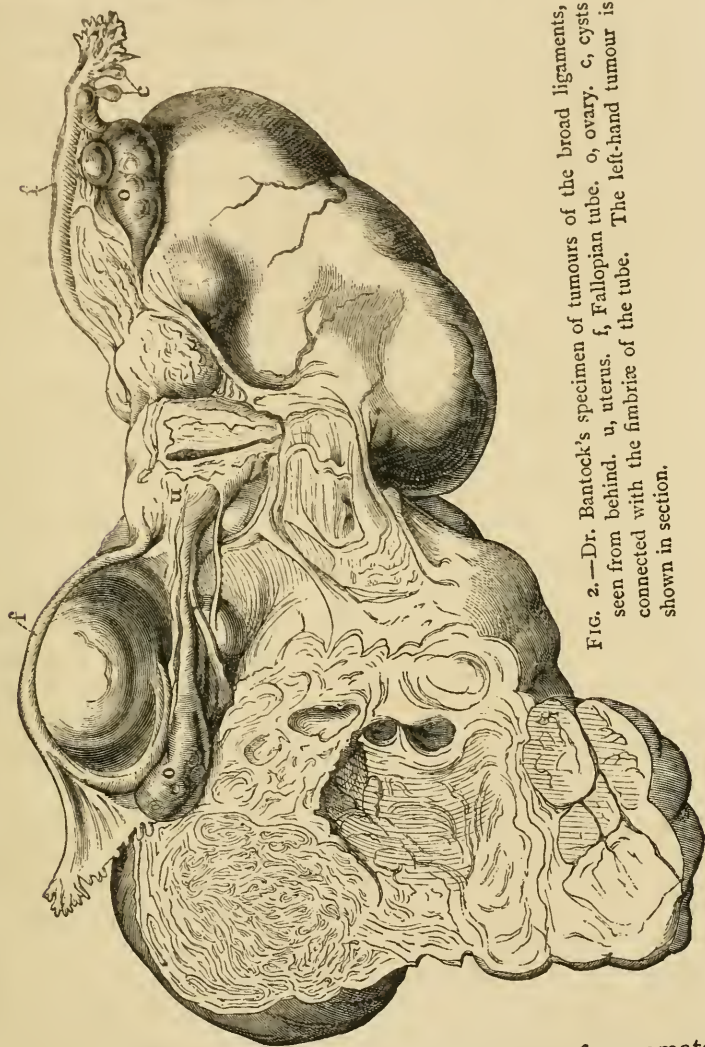


FIG. 2.—Dr. Bantock's specimen of tumours of the broad ligaments, seen from behind. u, uterus. f, Fallopian tube. o, ovary. c, cysts connected with the fimbriae of the tube. The left-hand tumour is shown in section.

the succulent parts were in a condition of myomatous degeneration. The tumours must be regarded as spindle-cell sarcomata.

So far as my knowledge of this subject extends, I am unacquainted with a case at all resembling this, but would draw attention to the fact that it is probably an example of what has been termed 'molluscum fibrosum cysticum abdominale.'

The PRESIDENT then exhibited a new metal for the Serre Nœud in wire, which proved to be the very thing for which he had been so long looking. He had long felt that there was a great objection to the use of iron or steel where the metal was exposed to the action of the air, aided by the effects of heat and moisture. The result of these conditions was that the tissues in contact with the metal became blackened for a considerable distance, and more or less irritation was caused, accompanied by a very unpleasant smell, thus confirming his objection to the application of iron to the stump, as still practised by some, notwithstanding his protests. He was happy to say he had now met with a metal which was wholly free from this objection, and he had brought the last one he had used in order that the Society might have ocular demonstration of the truth of his statements, and the Fellows would see that the metal had not undergone any change whatever, either in the Serre Nœud or the wire; and in order that this might be made plain he had not even wiped the instrument after taking it off, about a week ago. This metal was called Delta Metal, and was an amalgam of tin, copper, and iron. The Fellows would also observe that the wire was much more pliable than the soft iron wire, and they would get an idea as to its strength when he told them that in trying to break the wire a steel Serre Nœud gave way, by doubling up, without any injury to the wire.

Dr. AVELING exhibited a dispersing rheophore, to be applied to the abdomen in the electrical treatment of uterine tumours. It was made of amadou and spongio-piline, between which was placed a flat coil of copper wire. Before use the whole was moistened with warm salt water. Dr. Aveling preferred this to cold dirty clay. The amadou fitted closely

to the skin, and the copper coil allowed the pad better to assume the form of the abdomen than the plates now used.

Dr. AVELING also exhibited an instrument for measuring pelvic and abdominal tumours. It consists of two passive metallic sounds, which may be united or disunited by means of a screw. The end of one sound is bent round so as to admit the tip of the finger, by which the sound so bent may be passed into the vagina or rectum. While thus held in position against the tumour the other sound is bent round and pressed against the abdominal wall and tumour as nearly as possible opposite the point occupied by the sound in the vagina or rectum. The screw is now turned by an assistant, and the two sounds are carefully removed separately, reunited, placed on a sheet of paper, and a diagram traced by running a pencil round the curves assumed by the sounds. The position of the vaginal orifice, and of the point pressed upon through the abdominal wall, may be indicated by small pieces of india-rubber tube.

Dr. RUTHERFOORD wished to know the exact purpose the instrument was intended to serve. It seemed to him that if the instrument was intended to measure accurately the length of a fibroid tumour from the cervix to the fundus, or the part of the tumour which was most prominent through the abdominal walls, its usefulness was of no avail, as it seemed to him there were other more easy and accurate means of determining such measurements. As an accurate register in the electrolytic treatment of fibroids he thought it valueless.

Dr. R. T. SMITH exhibited an ovarian cyst removed two days previously. The lower third was almost black from the effusion of blood between the layers of the cyst-wall, the cyst being also folded on itself within the same area, and the portions tightly bound together by inflammatory exudation. The pedicle was acutely twisted one turn, and presented a black, almost gangrenous appearance to within half-an-inch of its origin from the right broad ligament. The left ovary was also removed, being enlarged to three times its normal size by cystic degeneration.

The patient was 24 years of age. Her second child was born in October 1886, and it was then found that an ovarian tumour was also present by the non-diminution of the abdomen. The cyst was tapped in March 1887, and $8\frac{1}{2}$ pints of thick reddish fluid were removed. She was admitted from the country.

October 11.—Note: Abdomen very flaccid, resonant universally except for a hand's breadth above pubes, where a cyst with flaccid walls can be detected. V.E. Uterus pushed down a little. Left *cul-de-sac* rather full, probably due to enlarged left ovary.

October 25.—Patient has had slight abdominal tenderness for two days, with mild fever, never exceeding 100° ; the catamenia now supervened, lasting four days, and within this time the temperature fell to 99° ; two days subsequently it was normal and remained so.

Meanwhile the tumour had rapidly increased in size, and on the 28th the cyst could be felt 3 inches above the umbilicus. There was slight icterus, with tenderness of the abdomen, but no vomiting.

November 2.—Catamenia now ceased; temperature normal; tumour rapidly filling, and forming a distinct bulge on the right side of the abdomen.

November 6.—Operation. The cyst was found to be universally adherent, with soft red velvety adhesions. The lower third was pressed down as it were into the pelvis, and felt solid, this solidity proving, however, to be nothing more than the rumpled walls tightly bound in masses by plastic lymph. The fluid in the cyst was deeply blood-stained. The abdomen was washed out with simple water and a drainage-tube inserted. On the second day the pulse was very quick, being at the rate of 156 for six hours; but from that time the patient rallied and recovered satisfactorily.

Dr. Smith drew attention to the mild character of the symptoms, there being no pain or shock during the inflammatory attack, nor any indication for immediate operation beyond the excessive rapidity of the growth of the tumour.

Is it not also possible that the peritonitis was the cause of the twisting of the pedicle, first glueing the coils of the sac (which were very acute) together and subsequently, by contraction of the lymph and formation of bands, giving a turn on the pedicle? The peritonitis was undoubtedly prior to the rapid growth of the tumour. A visitor at the operation having asked if the left ovarian cyst might not have been treated by excising a portion and allowing the contents to escape, Dr. Smith justified its entire removal on the grounds that by so doing he saved the patient, in all probability, from a second ovariectomy, and that by incision he would have added another grave factor to the peril of the present operation.

Dr. BEDFORD FENWICK said one of the most remarkable features about this most interesting case was, that though there was this marked twisting of the pedicle, though the cyst-wall was evidently nearly gangrenous in parts, and purple in colour nearly everywhere, showing how extreme the vascular obstruction must have been, and though the general adhesions showed that a considerable amount of peritonitis must have occurred, yet they were told by Dr. Smith that the patient had had no illness with severe constitutional disturbances such as one would expect to have heard of in such a case. He believed he was correct in saying that in cases where the ovarian pedicle had become twisted, immediate symptoms, such as syncope or even collapse, usually followed, and certainly, even if these severe signs were absent, that subsequently to the accident the patient almost invariably suffered from a sharp attack of peritonitis or a low and more gradual form of septicæmia. He would like to ask those Fellows present who had had large experience in these cases whether it was not extremely rare or even unique to find a patient with such a grave condition presenting such mild symptoms? To show how utterly misleading these were in this case he might add that Dr. Richard Smith, with his great experience, never expected to find such a condition of the pedicle and sac on opening the abdomen as the specimen shown to-night proved incontestably must have existed for some time.

Dr. HEYWOOD SMITH asked, in reference to what had fallen from Dr. R. T. Smith, whether the President thought it good practice, or the reverse, to cut a piece out of even a small ovarian cyst and return it into the abdomen.

Dr. BARNES observed that he believed he was one of the first in this country to record an observation of rotated ovarian tumour. He had no experience of the influence of loaded rectum in causing rotation. In three cases he had seen rotation was caused by the gravid uterus, which, growing from below, impinged upon the tumour, exerting leverage upon one side of it, and thus making it roll over. In one case the cyst burst. In all there were marked symptoms of distress, local and constitutional, constituting what he had described as 'abdominal shock.' It was this shock that killed. The tumour ought, if possible, to be removed. The common immediate effect of twisting was to strangulate the vessels in the pedicle, and certainly in some cases to lead to gangrene of the tumour; this he had seen in three autopsies. He suspected that this was more frequent than the formation of adhesions and the resumption of nutrition of the tumour through vessels in the adhesions described by Dr. Bantock.

The PRESIDENT remarked that the term 'gangrenous' was scarcely correct as applied to the specimen exhibited by Dr. Smith. It is true that the nutrition of the cyst-wall had been interfered with by the interruption of its normal circulation, but it was made up for by a new source of supply through the adhesions. In these cases the cyst presents a peculiar dirty-white colour, very characteristic. When twisting of the pedicle occurs rapidly so as to strangulate the vessels, no doubt the tumour presents a very congested or gangrenous-looking appearance. This condition is usually associated with evidence of peritoneal irritation, such as abdominal pain and tenderness, quick pulse, fever, and vomiting. After a few days these symptoms subside, and the tumour, having found a new supply, does not die, but becomes gradually smaller through absorption of some of its fluid. This was a very characteristic feature in the history of cases of twisted pedicle,

and he had several times been able to diagnose the existence of twisted pedicle from the history. As a rule, there was hæmorrhage into the cyst in these cases, and it was probably on the occurrence of this that the signs and symptoms of peritoneal irritation set in. It was also usual for the tumour to show marked increase of size at this time, and it is probable that the tension arising from this is the cause of much of the pain and tenderness.

Dr. F. A. PURCELL, Surgeon to the Cancer Hospital, read the following paper :—The specimen shown is that of a uterus, together with both ovaries, removed for malignant disease by vaginal hysterectomy. The organ is laid open and shows the disease implicates the neck as far up as the internal os, with an extensive papillomatous growth from seat of the former operation on the os, and which had projected into the vagina. The Fallopian tube is present on one side and not on the other; the two ovaries, one attached, the other not, appear normal, greatly shrivelled up, from the action of the spirit in which the specimen has been preserved; the entire organ is larger than normal.

The patient, Mrs. Eliza K——, from whom this specimen was removed, is aged 46, the mother of one child, now aged 24, and she was admitted into the Cancer Hospital on June 17, 1887, having been sent from Birmingham by Dr. John W. Taylor. A fairly well nourished woman, who until twelve months ago had enjoyed good health. About that time she had vomiting of blood and suffered violent pains across the lower portion of the stomach and back: this was followed in September of last year (1886) by a discharge from the vagina and pain on passing urine, which was voided with difficulty, and in January Dr. Taylor performed some operation on the urethra, which seemed to relieve her of this trouble. About six weeks subsequently malignant disease of the os was discovered, and this Dr. Taylor curetted and cauterised; recurrence soon showed itself, and as Dr. Taylor thought total removal of the entire uterus would be the most advisable

thing to be done sent up to me and expressed a wish to be present, at the operation if I thought well of doing it.

I examined the patient the day after admission to the Cancer Hospital, and had a consultation with my colleagues on her. The os was ulcerated to about the extent of a shilling, the edges hardened, and per rectum the body was found larger than it ought to be and thickened along the neck; the broad ligaments and ovaries appeared normal; the whole organ was freely movable. No enlarged glands to be felt.

There is no heredity of cancer or of phthisis; her father died at 79, and her mother, having borne thirteen children, died at 72.

Total extirpation was considered justifiable, and the nature of the operation with all attendant risks was explained to both the patient and her husband, and consent was given.

On June 23 Dr. Taylor, Mr. Henry Reeves, Mr. Needham, and other visitors being present, and assisted by my colleagues Dr. Enow and Mr. Jessett, I proceeded to perform vaginal hysterectomy. The patient being anæsthetised was placed in the usual lithotomy position, with the legs supported by Clover's crutch, the bladder emptied, and the vagina douched out with carbolised water; the diseased os was exposed by means of duck-bill speculi.

The disease of the os was found, since the examination made only five days previous, to have greatly extended; the anterior wall of the vagina down to the meatus urinarius was found inflamed and hardened: this condition had escaped notice at the previous examination, at which a speculum had not been employed to view the parts. This fresh complication and the rapid increase of the disease made me hesitate as to the advisability of operating, as an early recurrence was to be feared, and the operation itself in consequence would be discredited. However, taking the choice of the two evils, I elected to proceed, much as I may now regret it, for as early recurrence has taken place I fear the operation will in consequence receive condemnation.

The uterus was brought down and cleaned with vulsellum

forceps ; the mucous membrane fully an inch from the neck was circumcised, the anterior and posterior flaps reflected, leaving the lateral margins. Here a segment was pinched up, so as to include the lower uterine artery. After Dr. John Williams's method, a silk ligature was passed through it by means of an aneurysm-needle and tied, and the included structure snipped away from the neck of the uterus with scissors, first one side, then the other. This is the first innovation I have introduced in my cases. The peritoneum was opened anteriorly and posteriorly, and the openings enlarged with the fingers ; the fingers of the right hand were passed up anterior to the uterus and over the fundus, and then moved to the right so as to encircle the right broad ligament. A larger, well curved aneurysm-needle, armed with No. 4 carbolised silk, was insinuated over the broad ligament, between it and the finger, when the silk was secured and the needle withdrawn by pulling on the ligature, assisted by the finger, which remained above. The broad ligament was brought sufficiently down so as to be carefully examined for the ureter, it proving not present ; the ligature tied the lot *en masse*, close up to the ligature, on its uterine side. The pedicle was clamped with two pressure-forceps and divided away ; the thread was cut short ; the right corner of the uterus came down, not accompanied by the ovary, changing hands and passing the forefinger of the left hand over the fundus and on to the left broad ligament ; and as it was held between the finger and thumb was examined for the ureter which was not present. Here the broad ligament seemed so broad that a double ligature of silk was passed through its substance and tied and cut short. The pedicle was clamped on the uterine side of the ligature and then divided away. The Fallopian tube was not included, and came down with the left ovary. All now free, the uterus was drawn out ; the right ovary was felt for and brought down ; a small attachment was tied and divided, and it was got away ; the right Fallopian tube had been included in the ligaturing of the broad ligament. No bleeding occurred ; parts were douched, cleaned, and dried ; the pressure-forceps

on the pedicles were all carefully removed ; no attempt was made to close the peritoneal and vaginal wound above, nor was the mucous membrane of the anterior vaginal wall interfered with. Mr. Lawson Tait's¹ glass drain (being an improvement on Mons. Koeberle, better known as Keith's, as not being open at the bottom, is therefore not so liable to injure or punch a hole in a fold of intestine that may rest on it) was inserted ; the vulva was covered over with a large pad of salicylic wool and fixed by a T-bandage. The operation occupied one hour and twenty minutes. No tampons were used.

That evening the pad and draw-sheet were found saturated with coloured water. Four ounces of urine drawn off with catheter, which was to be repeated when necessary. Temperature to midnight ranged from 96·8° to 97·4° F. Patient was given ice only.

June 24 (second day).—Passed a comfortable night ; no sickness. Five ounces of urine drawn. Pad dry, renewed. Iodoform was puffed up the drain and about ; pulse 74, intermittent ; temperature for twenty-four hours ranged between 98·2° and 100·2°.

June 25 (third day).—Slept at stretches of an hour ; is comfortable ; during the night had six ounces of barley-water and a teaspoonful of 'Brand's Essence of Beef' was given twice ; pad dry ; urine free, drawn ; temperature for twenty-four hours 100° to 99·4°.

June 26 (fourth day).—Passed a very comfortable night ; slept two hours at a time ; urine drawn ; pulse feeble and intermittent ; pad dry ; drain taken out for the first time ; only a small piece of shred was found attached into a couple of the holes, its inner surface being well coated with iodoform ; no smell ; it was cleaned and reinserted, &c. Allowed fish and the essence of beef to be increased, with barley-water and arrowroot. The temperature during the forenoon was 99·6° ; from noon to midnight it ranged from 100° to 101·4°.

¹ See Mr. Lawson Tait's paper in *The British Gynæcological Journal* for August 1887, p. 193, where he gives a full description of it.

June 27 (fifth day).—She took her nourishment well ; at 5 A.M. complained of sickness and pain in the left iliac ; urine drawn off ; abdomen tympanitic ; passed flatus, but with difficulty ; slight discharge from drain ; applied a turpentine fomentation, which gave relief ; the pad became a little more soiled ; temperature for twenty-four hours ranged from 99.4° to 101.8° .

June 28 (sixth day).—Slight pain in left iliac ; urine drawn ; pad not much soiled ; drain contains pus ; after being cleaned was reinserted ; iodine-water was injected through it, which brought away a purulent discharge sufficient to colour the water ; temperature 99.6° to 101.8° .

June 29 (seventh day).—Complains of a throbbing in the urethra ; pad slightly soiled ; to have a turpentine enema ; iodine-water douches to be continued twice a day ; temperature 99.6° to 102.4° .

June 30 (eighth day).—Temperature was high all night ; rose to 101.8° , and in the forenoon from 101.8° to 102.4° ; enema acted slightly ; to have a teaspoonful of castor-oil ; pad but slightly soiled.

July 1 (ninth day).—Slept well, and has taken her nourishment. The drain is half-full of laudable pus ; bowels acted well ; temperature 101.8° — 99.2° to 100.6° .

July 2 (tenth day).—Pulse 66 ; eats well ; discharge of pus continues ; temperature 100.4° to 98.4° .

July 10 (eighteenth day).—Discharge lessened every day. The drain is now removed, and she is allowed to pass urine herself ; allowed upon the couch. From this on she became convalescent, and note-taking was stopped. On examining per vaginam the two fingers pass up their full length ; the vault is roomy, no contraction, no disease to be felt ; the stumps of the pedicles of the broad ligaments are felt distinctly. Returns home to Birmingham.

It is now four and a half months since the operation was performed, and an early recurrence has taken place, such as I feared, from the condition of the vaginal mucous membrane seen at the operation. On November 4 I received a letter

from Mr. Lawson Tait to say he had seen this patient the day previous, and that he found that she had a huge mass of malignant disease growing from each side of the pelvis, meeting in the middle and fixing everything; that she was suffering horribly. 'In fact,' he adds, 'I have not the slightest doubt that the disease has advanced far more rapidly, and that she is suffering far more on account of the operation being done than if she had been let alone.'

I must allow this condition of affairs to be anything but satisfactory. It may, however, be a question whether the operation is altogether to be blamed for the rapid recurrence of the disease, or I may ask, would not the disease have made just as rapid an advance, if not more so, if she had not been interfered with at all?

In my first case, that of M. A. G., death took place ten and a half months after operation, with undoubted recurrence in the vagina and rectum.

My second case, that of Maria G——, who was operated on October 16, 1885, now over two years ago, is still alive, and free from any return.

My third case, Mary Wood, died six months after operation, with recurrence extending to the rectum.

My fourth, as now related, is alive, four and a half months after operation, and has recurrence.

In one, three, and four the mucous membrane of the vagina was involved, and under the circumstances the operation was contra-indicated. Yet I claim a certain success for the operation and the feasibility of its being performed. I grant that only a very small number of cases of cancer of the uterus can be subjected to the operation of total extirpation of the organ, and that this is only justifiable when the body of the uterus is cancerous, when the organ is still movable and not much enlarged in volume, and in cases in which the disease does not involve the vagina. Certainly the operation is not to be entertained if there be superficial primary cancer on the vaginal walls, or even when the disease has extended on to the mucous membrane neighbouring the os, nor in cancer of the cervix alone.

The PRESIDENT said that before calling for any remarks on Dr. Purcell's case he would like to show a specimen bearing on the subject. The specimen was the entire uterus which he removed from a patient sent to him by Dr. Hynes, of Nottingham. This patient was a lady, aged 43, married, but without issue, who was the subject of menorrhagia and metrorrhagia. He had no difficulty in deciding that, though there was considerable enlargement of the uterus, the case was one for exploration of the uterine cavity rather than abdominal section. He accordingly dilated the cervix and found he had to deal with a case of malignant disease of the cavity, and he proceeded no further than the application of a strong solution of iodine to the cavity. Dr. Hynes at once assented to the suggestion that vaginal hysterectomy was the only possible treatment, and the assent of the patient and her husband was readily attained. About three weeks later, viz. on June 24, when the discharge following the dilatation, &c. had ceased, he removed the uterus with the assistance of Dr. Hynes. The operation was a very difficult one from the circumstances that the patient was very stout and had had no child ; that the vagina consequently afforded little room ; and that the uterus, as seen by the specimen, was very large. His method of operating differed somewhat from that pursued by Dr. Purcell, and he would ask to be allowed to describe it in some detail. After dividing the mucous membrane around the cervix, he separated the bladder in front from the uterus as high as he could reach, always keeping the palmar aspect of the finger towards the uterus, as in the separation of an adherent placenta. In effecting the separation of the structures laterally, whenever he came across a resisting band he applied a pair of pressure-forceps and divided the band between the instrument and the uterus. Meanwhile traction was kept up by means of a volsella fixed in the cervix, and with each division of a resisting band the uterus descended a little. In this way he proceeded towards the fundus, and he was able to bring the posterior aspect of the broad ligament at its junction with the uterus into view and divide it piecemeal, and

thus see any bleeding vessel. All the vessels were thus secured by forceps and afterwards ligatured separately. Thus no large amount of tissue was included in any one ligature, as was usually done, and he regarded this as a great improvement in the technique of the operation. As soon as all the vessels were secured he washed out the pelvis with a full stream of warm water and then put in a drainage-tube, lightly packing it around in the vagina with absorbent gauze charged with a small quantity of iodoform. For more than 48 hours the patient passed large quantities of water naturally, but then the bladder somehow gave way, and the whole of the urine passed afterwards by the vagina. This did not interfere with the otherwise satisfactory progress of the case, and in the beginning of August the patient went home. She returned about three weeks ago, and he operated on the fistula, which was of small extent, in the line of the matrix in the left side. He operated on the fistula with the assistance of Dr. Hynes, and the operation proved to be one of very great difficulty. So far he was not able to say that this operation was successful, for there was a slight weeping from a pinhole opening, which, however, gave some promise of closing, for the patient was now able to retain her urine and pass 8 or 10 ounces at a time. Apart from this inconvenience the patient was in excellent health.

The general question, he thought he was justified in saying, stood in a different position from the case presented by Dr. Purcell, for it afforded fair ground for hoping that if the patient recovered from the operation she might escape any recurrence of the disease. On the other hand he thought the operation unjustified except in a very early stage of cancer of the cervix. It was very seldom that cases were seen in this early stage—at least it was not his fortune to see them.

In Dr. Purcell's case an ocular examination of the specimen tends to the belief that the disease had already invaded the surrounding structures, and the early return of the disease, as related by him, supported this view.

Mr. F. BOWREMAN JESSETT remarked that he had had

the pleasure and advantage of assisting his friend Dr. Purcell in all his cases of vaginal hysterectomy, and in the case now brought before the Society he could say positively that Dr. Purcell made his incision in the mucous membrane fully half an inch clear of the ulcerated surface. Whether infiltration of cells had extended beyond the incision it was in his opinion impossible to determine at the time of operation.

Dr. BARNES could not speak very hopefully of the operation for hysterectomy where the uterus had been seized by any form of malignant disease; but he concurred with the President in the opinion that it offered the best result when the body or fundus, and not the cervix, was involved. It might be that the nature of the disease affecting the fundus was less actively malignant than the form which had its primary test in the cervix. Again, the fundus was, perhaps, not so intimately associated with tissues or vessels capable of transmitting the disease to neighbouring parts, as was the case with the cervix. Thus the disease remained longer in comparative isolation. In the cases described by Dr. Purcell it was very doubtful whether the disease had not extended beyond the limits of his operation, and the highest proliferation into tissue outside would render the operation futile. He was not in any way animated by national prejudices, but he thought the statistics of German hospitals must not be too readily accepted as conclusive upon this question. We could not cross-examine the cases. Koeberlé had told him that one of the first cases of hysterectomy performed on the diagnosis of cancer was not cancer. The case recovered—unfortunately recovered, for it led to many subsequent operations where the disease was cancerous, and these died. We possessed in this country an ample field for clinical observation, which, properly cultivated, would enable us to arrive at trustworthy conclusions.

Dr. MANSELL-MOULLIN said the careful work of Dr. Purcell and Mr. Reeves in this particular direction only afforded still more convincing proof of the unsatisfactory result of operative treatment of malignant disease of the

uterus. As far as the operation itself was concerned, great success had attended their efforts, all their patients having made good recoveries. If in a long series of cases it could be shown that the mortality was less than that of the partial operation, which in Schroeder's hands was twelve per cent., the complete operation might possibly be deemed preferable to the supra-vaginal operation. The cases that were suitable for extirpation were however very few, and the unfortunate termination of Dr. Purcell's case showed that when recurrence took place, as it almost invariably did in a very short time, the sufferings of the patient were none the less for the operation to which she had been subjected.

Dr. ROUTH said he could not admit the philosophy of doubting the character of the cases of cure after operation for uterine cancer by controversial operations. The natural tendency was to believe that if a case was cured it was not a case of cancer at all; if incurable that it must have been cancer.

His own opinion was that cancer of the *body* and *fundus* uteri (especially in those cases where it originated from within) could be cured by extirpation of the uterus—at least, in most cases—but that even in these varieties careful examination should be first made to ascertain, not only by vaginal and abdominal examination, but especially by rectal investigation, to ascertain that no glands or surrounding structures were involved before an operation was attempted. Again, he was quite sure that a cure often followed operation in other cases where only the *cervix* was affected, and especially in cases of *epithelial cancer*. But if the vagina or rectum, and especially the bladder, were affected, the adjoining glands were sure to be involved, and operation was worse than useless. He was afraid that, in that Society perhaps, heroic operations, because so grand and bold, were too much insisted on. Life might often be prolonged by careful therapeutical measures and care, as advised by Dr. Grigg, when an operation only increased pain and hastened death.

Dr. EDIS thought that unless a correct diagnosis was

made at a very early stage of the disease operative interference was not likely to prove of permanent benefit, a recurrence almost invariably taking place within a few months' time. Where the disease commenced in the fundus, as in Dr. Bantock's case, the prognosis was more favourable. It was absolutely essential in all cases of epithelioma to remove all or nothing.

Dr. PURCELL said in reply,—Sir, I have to thank the Society for the discussion which has arisen on the specimen I have shown, and am pleased that you yourself have now brought before us a case of vaginal hysterectomy, and that you sanction the operation in suitable cases. In reply to Mr. Bland-Sutton I must say, inasmuch as I divided the mucous membrane, leaving fully half an inch of sound structure, that I felt sure I went by that at least beyond the disease, and secondly how I avoided the ureters. Having entered the peritoneum, and getting the fingers up anterior to the uterus and over the broad ligament, and then passing a No. 4 silk ligature by means of an aneurysm-needle guided by the finger over the broad ligament by the combined traction, the ligament is brought down sufficiently to examine it for absence of the ureter, which if not present, the ligature is tied and the parts divided away close up to the uterus, a pressure forceps clamping the stump. The second side comes easier, but examined in the same way, before tying the ligature and separating the parts. In reply to Mr. Reeves I join issue with him, from the experience of my cases, in not recommending total extirpation where disease is likely to have infected the mucous membrane of the vagina contiguous to the os or neck, or where disease of the os alone exists, for here supra-vaginal amputation is the operation called for. Unfortunately where disease of the vaginal walls exists we may be sure it already invades the deeper tissues, and recurrence sooner or later must be anticipated. For carcinoma of the body or os I agree the operation is highly successful in the same ratio as that for the breast or tongue. I

attribute, more than to anything else, the bringing of my cases to a successful issue to the strict observance of absolute cleanliness, the use of the douche, and to the glass drain. Mr. Reeves, I think, misinterprets my after-treatment.

In reply to Dr. Barnes I cannot agree to throw such discredit on the German surgeons in the reporting of their cases as he appears to do. I however agree in the rule he lays down for limiting the operation to where the body is the part diseased. The remarks of Dr. Grigg are most interesting as to the non-interference in the several cases he has mentioned, that life has been prolonged for 8, $2\frac{1}{2}$, 3, $2\frac{1}{2}$, and 3 years by the cases being left absolutely alone, commencing with a condition to start with for which no operative interference could be recommended : it certainly shows well beside the statistics of those that have been submitted to operation. Anent Dr. Grigg's remarks as to examination under chloroform, the *tiefe Narcose* of the Germans, I must say I have not carried it out to the full extent of passing the entire hand *per rectum*, but I have in each case examined by means of two fingers in the rectum, and believe I can explore parts sufficiently ; a thorough examination is, however, to be recommended—one can feel the body of the uterus and the appendages better through the rectum than any other way—and for the condition of the pelvic glands.

Dr. Edis argues against the propriety of total extirpation, and believes that the supra-vaginal operation is preferable except in such a typical case as the President has shown. He has said much in which I fully agree.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, NOVEMBER 23, 1887.

G. GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT: 26 Fellows, 2 Visitors.

The following were elected Fellows of the Society:—Dr.

A. E. Morison, Dr. D. Sinclair, Dr. D. Smart.

The following were proposed for election:—Dr. Gustav A. Dirner, Buda Pesth; Mr. F. Bowreman Jessett, London.

Dr. EDIS exhibited a specimen of retained products of conception. In this case a miscarriage at about the third month of foetal development was supposed to have taken place some three months before the patient was seen by Dr. Edis for peritoneal menorrhagia. The patient, aged 26, married four years, mother of two children, youngest eighteen months; had suckled until her child was fifteen months old. There had been no appearance of catamenia since the confinement. About three months after she weaned she noticed a blood-coloured discharge from the vagina, which came on after being up most of the night nursing the children. The next day she experienced much pain in her back, and the loss was rather profuse and bright-coloured. She miscarried, as she imagined, during the night, passing several clots and having very sharp pains. She remained quiet for a few days, and the hæmorrhage almost ceased, but recurred as soon as she began to get about again. A doctor who saw her prescribed ergot, but made no examination. The hæmorrhage continued on and off, at times being very profuse, for the next three months, when she was seen by Dr. Edis. On examina-

tion the uterus was found to be very bulky, lower in the vagina than normal; the cervix uteri patulous. Protruding from this was a firm fibrinous clot, gripped tightly by the cervix uteri.

Ether was administered; the cervix dilated sufficiently with the finger to enable the ovum-forceps to be passed, when after a little careful manipulation the placental portion of the ovum was extracted entire.

Rest was enjoined, ergot administered, and the patient from the time of operation had no further loss until some three weeks afterwards, when she passed through an ordinary menstrual period, and subsequently convalesced perfectly. At the time of the operation she was very anæmic, and had evidently sustained a severe and protracted loss of blood.

The chief interest of the case consists in the fact of hæmorrhage being allowed to continue unchecked for three months after a miscarriage without an examination having been resorted to or an attempt made to find out the cause. The case well illustrates the necessity of examination in all cases where uterine hæmorrhage persists.

Dr. HEYWOOD SMITH said that the question raised by Dr. Edis was of great practical importance, especially in those cases, so often seen, where the hæmorrhage occurred two or three months after abortion, for in these cases the uterine canal had considerably contracted, rendering it impossible to explore the uterus with the finger except after considerable dilatation. The method he pursued, and which he had found generally successful, was to work down the uterus, rapidly dilate with graduated sounds, and then, taking care to use a safe portecautique, to freely apply the solid nitrate of silver, after having removed with small uterine forceps any fragments of adherent placenta that could be reached.

The PRESIDENT said:—With regard to the twisting of the pedicle, Dr. Heywood Smith would submit whether it might not be due more to the shape of the tumour rather than to any distension of the rectum or outward impression. He contended that globular tumours would not become twisted,

but that ovoid tumours, having more solid parts as from secondary cysts, at one part would be more influenced by slight impressions from the varying contents of the bowel or forces acting from without.

Dr. HEYWOOD SMITH said he thought the true explanation of the sloughy condition of an intra-uterine fibroid not extending to the uterine tissue proper was that the fibroid tumour had a far lower degree of vitality than the contractile tissue of the uterus, and that the tonic contraction of the uterine walls tended to dissociate them from the fibroid as a foreign body.

Dr. CHALMERS, speaking from experience chiefly in the early stage of abortions, said that it seemed to him of more importance to instruct the general practitioner in the use of the finger than in the use of instruments, because a finger was a safe and, as Drs. Aveling and Grill had shown, an efficient agent. Likewise, after the finger had been educated to explore and to know what it felt, then the practitioner was more likely to use instruments with advantage and with safety.

Dr. AVELING believed when the uterus was sufficiently dilated to admit the finger it could be used to clear out the cavity far better than any ovum-forceps yet invented. By pressing the uterus down from above he had never met with a case in which he was unable to reach the fundus.

Dr. EDIS, in reply, said he did not at all recommend the employment of ovum-forceps universally. The finger was far the best instrument where it could be employed; but in a case like this—three months after the miscarriage—it was difficult to dilate the cervix sufficiently, and for that reason the ovum-forceps were used. Neither sulphuric acid nor ergot would have checked the hæmorrhage until removal of the placenta had been accomplished.

The PRESIDENT exhibited a small dermoid ovarian tumour, which he had removed in the afternoon, with a twisted pedicle, for the purpose of illustrating a question raised at

the previous meeting. On that occasion he pointed out that this condition of twisting the pedicle might frequently be diagnosed from the history of the case, as in this instance, that when rotation occurred the symptoms were in proportion to the rapidity and completeness of the strangulation. The patient was a married woman, aged 34, and the mother of four children. In June last she complained, for several weeks, of rather severe pain. In September the tumour rapidly increased in size and became very tender, while the pain was transferred to the right groin. On admission the patient affirmed that the tumour, which now weighed about 4 lbs., was very much larger. From these facts he ventured to diagnose twisting of the pedicle, which the operation confirmed. There were some filamentous adhesions to the upper and back part of the tumour and numerous adhesions at the base around the twisted pedicle. The Fallopian tube had been carried over to the right side, where it adhered by its infundibulum to the broad ligament. On breaking down its connections an ounce or two of the usual characteristic fluid escaped from a dilatation of the outer end of the tube, which the specimen still showed, and it is reasonable to conclude that this explained the transference of the pain to the right side, described above.

Dr. IMLACH said the time had arrived when it might be possible to lay down a precise diagnosis of rotation of an ovarian tumour. He had recently been consulted by Mr. Marsh in a case of ovarian tumour, about the size of the uterus at the full term of pregnancy. The patient had carried this tumour for three years without pain or much discomfort, and had never sought medical advice about it. But while getting over a stile recently she stumbled, and for four days and three nights she had sat up in continuous agony, unable to lie down for a moment or to obtain relief from laudanum. The pulse was rapid and small, but there had been little increase in the temperature; there was certainly no diminution in the bulk of the tumour. A confident diagnosis of rotation of the pedicle was made, and was

verified by abdominal section. The pedicle was found to be twisted from left to right, the tumour was engorged with blood, and the portion of cyst-wall remote from the pedicle when cut through roughly resembled the section of a placenta. There were no adhesions, and the tumour floated in a considerable quantity of blood-stained serum. The patient's recovery was rapid, and, unless gangrene has commenced, rotation of the pedicle does not appear to retard convalescence. In another case, in which peritonitis had followed rotation of an ovarian cystoma, Dr. Imlach had washed out the peritoneal cavity with good results. A history of recurrent attacks of pain, with early rise of temperature, almost precludes a diagnosis of twisted pedicle.

On the Nature of the Hymen. By J. BLAND SUTTON, F.R.C.S., Hunterian Professor Royal College of Surgeons, Assistant Surgeon to the Middlesex Hospital.

THE anatomy of the hymen must be so familiar to all who have passed through the usual routine of the dissecting-room that it will be unnecessary for me to spend time in discussing it. My object is to endeavour to elucidate as far as possible its nature; to this end I propose to submit to the Society an argument regarding the origin of this curious diaphragm.

Its history is bound up with that of the anus. At an early period of foetal life that segment of the gut which normally fuses with the proctodæum, or anal involution, dilates, receives the extremities of the Wolffian and Müllerian ducts, and gives off a diverticulum, the allantois, which in mammals becomes subsequently the bladder.

As the proctodæum invaginates it unites with this dilated segment of the gut, and brings this previously closed sac into connection with the exterior. This common sinus is termed the cloaca; from an embryological standpoint it may be described as consisting of two sections, one derived from the primitive gut, the other from the proctodæum; the epithelium of the former is therefore mesoblastic, and of the latter epi-

blastic. This distinction between the two parts remains throughout life, for in the rectum a ridge of adenoid tissue marks the situation where the squamous epithelium of the anus joins the columnar cells of the rectum. In the vagina the corresponding spot is indicated by the hymen, or its remains. A closer examination of the cloaca shows that it may be further divided; the portion in which the urino-genital ducts terminate may be conveniently termed the urogenital sinus in order to distinguish it from that portion which receives the rectum. This subdivision is further sanctioned by the fact that the two parts are subsequently separated by the development of the perineal body, the permanent boundary between the vagina and anus.

We must now turn our attention to the mode by which the proctodæum and gut fuse together. We find that when the two culs-de-sac come into contact and exert pressure upon each other the edges gradually cohere and join organically. At this stage the lumen is yet obstructed by a thin septum. This gradually thins on account of the pressure until a perforation results. The hole gradually increases, and the septum slowly disappears until a complete channel results.

Restricting our attention to the anus, it is clear that if the invagination fails to reach the gut we shall have an imperforate rectum, fig. 3, A. They may meet, but the septum persists as in B. This septum may become perforated, but the edges persist as a diaphragm, C.

A study of these conditions has served to convince me that the hymen is merely a *thin septum, resulting from the imperfect coalescence of the proctodæum with the urinogenital section of the cloaca*. Should the septum be complete, we speak of it as imperforate hymen; occasionally the perforation is eccentric, multiple, or cribriform. In rare cases the septum is wanting at birth. All these variations are consistent with the mode of development of the vagina.

This view receives support from Shattock's observations on ectopia vesicæ.¹ This observer believes the malformation

¹ *Path. Trans.* 1887.

to be due to the circumstance that the proctodæum not only lays open the cloaca, but also opens up the ventral wall of the allantois. This view I am prepared to endorse most fully. In a preparation of a case of *ectopia vesicæ*, occurring in a still-born female foetus, the vaginal segment of the fissure afforded no trace of a hymen.

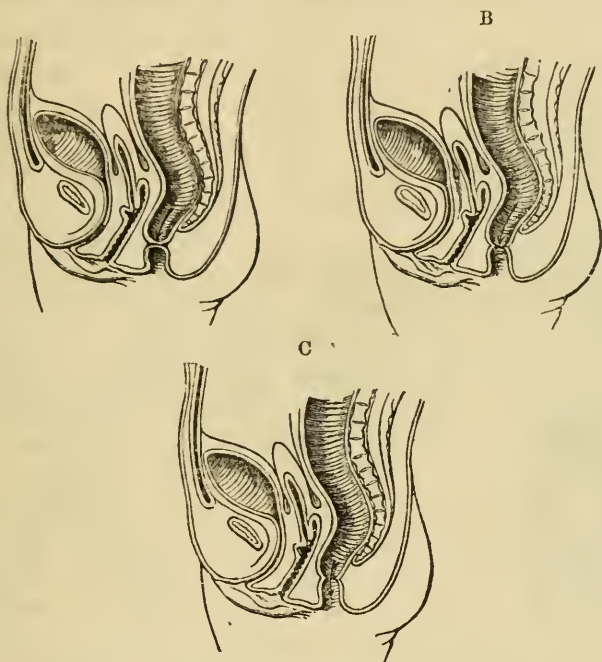


FIG. 3.—Diagrams representing three varieties of imperfect coalescence of the anal portion of the proctodæum with the rectum. A. Imperforate rectum. B. The parts have coalesced, but the gut is obstructed by a septum. C. The septum is perforated, but a diaphragm remains.

Evidence as to the nature of the hymen may be obtained from the opposite end of the alimentary canal. The mouth and pharynx, with the associated structures, are derived from an involution of the surface epiblast, named the stomodæum. This meets the blind anterior end of the foregut at a spot eventually corresponding to the cricoid cartilage. Should these parts fail to unite we get an imperforate pharynx ; when

the coalescence is imperfect, then a hymen-like diaphragm may be detected, as in B, fig. 3. To render this view more complete, the true hymen and the œsophageal diaphragm are shown side by side (fig. 4). If it were necessary, further evidence could be adduced to support the view that when two culs-de-sac, vessels, or ducts come into contact and exert mutual pressure, the compressed part eventually becomes

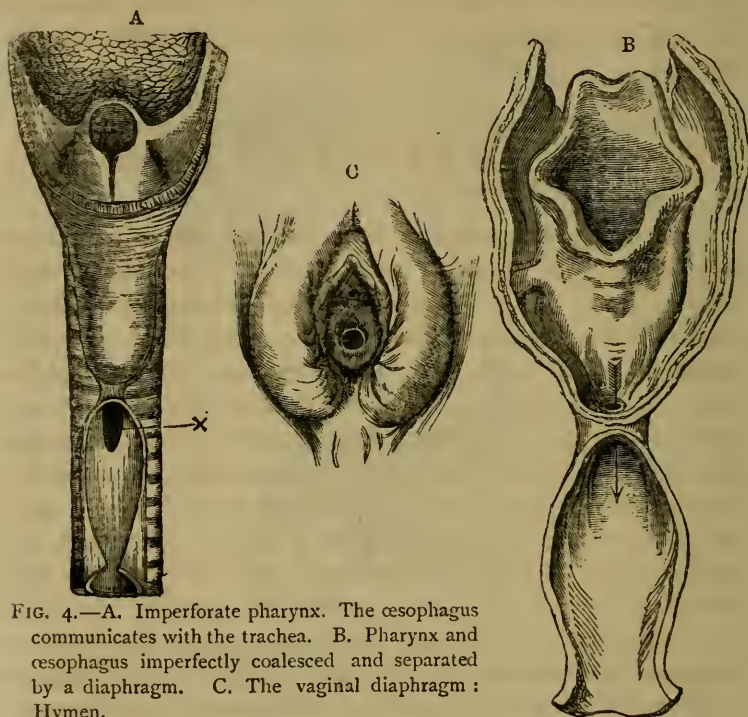


FIG. 4.—A. Imperforate pharynx. The œsophagus communicates with the trachea. B. Pharynx and œsophagus imperfectly coalesced and separated by a diaphragm. C. The vaginal diaphragm: Hymen.

perforated, ending in the formation of a hymen-like diaphragm, which may persist for a time and then disappear. So far as the alimentary canal is concerned, diaphragmata of this nature occasionally exist between the pharynx and the œsophagus, in the duodenum immediately above the entrance of the bile-duct, in the rectum at the point of union of anus and gut.

Thus the formation of a diaphragm, sometimes complete, but more commonly perforated, at the entrance of the vagina is only in agreement with what occurs in other parts of the body when two culs-de-sac coalesce to form a continuous passage.

Lastly, it is of interest to remember that abnormalities of the vaginal orifice are not infrequently associated with defects of the alimentary canal, and this is what we should expect on taking into consideration its embryological relations with the cloaca.

Enucleation by Electrolysis of a large Uterine Fibroid. By
E. HOLLAND, M.D., M.R.C.P., F.R.C.S., Physician to the
Hospital for Women.

Mrs. C., æt. 38, mother of seven children, was admitted on July 4, severely blanched and flooding. The uterus was involved in a hard, multiform, fibroid enlargement, whose measurements were as follows: Upper limit level with the umbilicus; right lateral limit 5 inches to right of middle line; left limit $3\frac{1}{2}$ inches from middle line; transit of sound $6\frac{1}{2}$ to 7 inches. The hæmorrhage resisted all ordinary resources, and, as there was no cervix available for a stump, electrolysis was considered a legitimate procedure, and was accordingly begun on July 22 as follows:—The negative electrode, insulated to $4\frac{1}{2}$ inches from its free extremity, was placed in the uterine cavity, whilst the positive electrode was connected with the zinc and potters' clay distributor of Apostoli, and applied externally over the tumour. A current of 50 milliampères was gradually induced and allowed to play for ten minutes. On the 25th the application was intensified to 80 milliampères; on the 29th to 150 milliampères. After this there was pain for an hour, and the tumour was perceptibly diminished in area. On August 2 there was again free hæmorrhage, and clots passed for several days. On August 9, the hæmorrhage still continuing, *positive* galvanocauterisation to 250 milliampères was maintained for twelve minutes, with the result that the hæmorrhage was arrested and

never recurred. On August 12 *negative* galvano-cauterisation to 250 milliampères was again resorted to for ten minutes, and on this and subsequent occasions the patient appeared less tolerant. August 15, negative galvano-cauterisation to 250 milliampères; August 18, to 300; August 22, to 235. After the application on the 22nd the patient suffered from chilly feelings, had raised temperature, and thought she had taken cold, whilst a vaginal discharge set in and became daily more and more fœtid. August 27, much pelvic pain was noted. August 29, fœtor increasing; sloughing evidently going on; uterine cavity well douched, after which the temperature shot up to 103°. Between the last date (29th) and September 4 a large sloughing mass was bloodlessly enucleated and extruded into the vagina. September 5, mass removed by two applications of the *écraseur*, and other small enucleations by fingers and scissors from a base which was found to be the left lateral wall of the uterus inverted. After this operation the inverted left lateral wall of the uterus was manually replaced and remained *in situ*. Between the date of this operation (5th) and September 8 a second bloodless enucleation and extrusion of a much larger mass was accomplished; this mass was roughly pedunculated and tightly distended the whole vagina, and was removed by three applications of the *écraseur* and one or two twisting processes. On the second evening after this operation the temperature rose to 104°, but this was quickly subdued by quinine and the intra-uterine douche. The douches were most thoroughly used every three or four hours, chlorine water being the usual one, and quinine was freely given at each rise of temperature. On September 15 the patient was quite convalescent, the discharges scanty and without fœtor; the sound passed 2 $\frac{3}{4}$ inches, and there was no evidence of tumour. From the commencement of the electrolysis to the date of convalescence there were exactly 55 days. It is also well to observe that the tetanoid condition into which the uterus was somewhat persistently thrown by the electrical excitement on each occasion led us to anticipate necrosis and enucleation as possible and prob-

able contingencies, and in doing so to draw attention to the diagnostic importance of the galvanic current in tumours of uterine constitution, as by its means such tumours are so hardened and defined as to at once isolate them from any others with which they could be reasonably confounded.

Dr. IMLACH said that Apostoli's treatment was almost as full of promise as were the electropathic belts so freely advertised at present. There was scarcely any pelvic disease it was unable to cure, and that it caused uterine fibroids to slough out was the only thing as yet unclaimed for it. Dr. Holland had now shown that it could do even this. It was doubtful, however, what part electrolysis had played in this case. It was possible that the fibroid was lying in the uterine cavity ready at any moment for extrusion, and that any irritant or cautery would have acted as well. A more sober estimate of the value of electro-therapeutics in gynæcology was a desideratum, but as regards this individual case Dr. Holland was to be congratulated on its fortunate termination.

Dr. BURFORD said there is a tetanoid condition of uterus set up after electrolysis, but even with very strong currents it is not protracted, five or six hours being the maximum limit I have hitherto observed. But a more important point is the chemical action of the current on the fibroid fluids. If one examines the under surface of the metal plate imbedded in the clay electrode after electrolysis it is seen studded with bubbles of gas, evidently due to the decomposition of water in the moist clay. If such electro-chemical decomposition can be set up by the current externally, it is fair to infer that similar decomposition goes on in the fluids in the fibroid.

Regarding the safety of high currents, I have seen a current of 700 milliampères—positive pole in utero—used with not much intolerance of the patient at the time, and no evil results ensuing.

Dr. AVELING thought the current used in this case might have been too strong. The myoma was cured by the old and dangerous method of cauterisation, not by negative electrolytic decomposition, as proposed by Apostoli.

Dr. MANSELL-MOULLIN had had opportunities of seeing the case related by Dr. Holland on several occasions during the course of treatment. While congratulating the operator on his brilliant success, he could not forget the fact that the element of good fortune had been largely present throughout. The patient had been fortunate in escaping the dangers of septicæmia, which everyone knew was in the case of a sloughing fibroid a very imminent danger. Again, it seemed to him a fortunate circumstance that the process of necrosis had stopped short of the peritoneal surface of the uterus. It was to be trusted that the explanation offered by the operator for the necrosis having taken place was the correct one; that it was due to the tonic contraction of the uterus, thereby presupposing a strong uterine wall outside the tumour. The point raised was a practical one, because it would be most undesirable when employing the current to establish necrosis in a tumour which was either subperitoneal or interstitial.

Dr. Mansell-Moullin believed that in suitable cases of submucous fibroids the electric current would be found of much service in connection with the operation of enucleation. Its action was to hasten the process which Nature was in many cases already attempting to effect. It forced the tumour downwards and through the cervix, thus dilating it and bringing the tumour within reach of the operator. Such had been the result in the present instance. There was no evidence of any diminution in bulk, as claimed for the electrolytic current by Apostoli. In the numerous cases in which he had seen the treatment carried out with that view, failure had been the result in every instance.

Dr. EDIS thought enucleation of a fibroid mass by a process of sloughing was not the operation contemplated by Apostoli, and the case recited merely showed what the caustic action of electricity would do.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY,

WEDNESDAY, DECEMBER 14, 1887.

G. GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT: 36 Fellows, 8 Visitors. The following were elected Fellows of the Society :—Dr. G. A. Dirner, Dr. F. B. Jessett.

The following were proposed for election :—Dr. Charles Arrol, Sheerness; Dr. E. S. Ricketts, Portsmouth, Ohio, U.S.A.; Dr. Charles Donkin, London; Dr. William Wood Cuthbert, Stonham, Suffolk.

Dr. BEDFORD FENWICK read a report in which he announced that the library of the Society already consisted of 750 volumes. He further stated that a fully detailed catalogue would appear in the forthcoming number of the *Journal of the Society*. He trusted that it would also be possible to issue at the same time the necessary rules to be observed by Fellows of the Society who might wish to avail themselves of the advantages of it to them.

The thanks of the Society were voted to the following gentlemen who had presented books to the library: Dr. Free-land Barbour, Edinburgh; Dr. H. W. Ayling, London; Dr. J. H. Aveling, London; Dr. William Goodell, Philadelphia; Dr. Thomas, Philadelphia; Dr. James Smith, Belfast; Dr. Cordes, Geneva; and M. Matthieu, Paris.

Dr. BEDFORD FENWICK showed some sections from the heart removed from the body of a patient who died in August last in the Hospital for Women. She had been admitted under his care suffering from a very large ovarian tumour. At the

operation it was removed with considerable difficulty owing to extensive adhesions everywhere and the great size and solidity of the mass which, after the colloid-like contents had drained away, weighed about 22 lbs. The patient did fairly well after the operation till the eleventh day, except that her pulse was constantly and abnormally rapid, although the temperature did not exceed 100° F.; on the morning of the twelfth day she became suddenly worse—became comatose, and died in about three hours and half. The autopsy showed there had been much old and some recent peritonitis, but not nearly enough to account for the collapse. But the heart's walls were markedly degenerated and infiltrated by fat-cells. This was the last piece of a good deal of evidence which Dr. Bedford Fenwick had received since reading a paper upon this subject before the Society last year, tending to show that the facts he then brought forward and the inferences he drew from those data were alike correct.

Mr. JACOB HOOD said that the case last mentioned was one operated on by him about eighteen months ago. So far as he could remember the patient was a woman of 58 or 59 years of age. Prior to the operation she appeared fairly healthy and well nourished. No albumen was found in her urine until about the second day. She died on the fifth day. Microscopical examination was made of the heart-substance, and marked fatty degeneration was found. He mentioned about the albumen because she was passing a comparatively small quantity of water containing no albumen, and yet she had markedly granular kidneys. It was chiefly the renal condition that killed her; but, as was remarked at the time, she would have had a good chance of recovery had it not been for the condition of her heart. The specific gravity of the urine was under 1020.

Mr. LAWSON TAIT said that in what might be called the old days of abdominal surgery, when patients were tapped a large number of times, deaths of this kind occurred. He had drawn attention to these symptoms, but he had attributed death to another cause, which he then considered probable.

He was bound to say, however, that after hearing Dr. Fenwick's observations he was inclined to withdraw his view and substitute that of Dr. Fenwick with one qualification. He remembered a number of cases of sudden death after operation in patients, who were apparently doing well, in whom they had generally found a white clot in the heart. He had therefore been under the impression that the withdrawal of certain albuminoids in the blood left the blood in such a condition as to render it more liable to coagulation, for these patients did not die when the tumours were parovarian, and it was well known that parovarian cysts used to be tapped an enormous number of times. He had a photograph taken from a tombstone in Romsey Churchyard which recorded the fact that the deceased had been tapped some enormous number of times for parovarian cyst. Ovarian cysts did not stand tapping, and that explained why parovarian patients did not suffer much, for nothing much was abstracted from them in the shape of albuminoid material. In the country some five or six per cent. would die in this way after a major operation. He wished to ask Dr. Fenwick whether there was anything like the heart-clot he had described in the cases recorded by him. In spite, however, of that being a factor in his own cases he was certainly disposed to accept Dr. Fenwick's explanation of the death in preference.

Dr. INGLIS PARSONS asked whether there was any heart-disease, and whether there was a condition of anæmia or prolonged fever. He observed that certain cardiac changes were known to take place in fever of some duration. It appeared to him that if they were to attribute sudden death in ovarian disease to this cause they would expect it to occur much more frequently. He did not perhaps quite understand Dr. Fenwick's theory as to what caused death. He did gather that it was to be put down to the presence of these tumours. If the heart was degenerated in one case why was it not the same in all cases?

Mr. LAWSON TAIT observed that there might be cases where death was due to heart-failure merely from distension,

and others where his explanation would still hold good. He was reminded that he had quite recently had a death like the one recorded *before* operation. The patient was brought to him from near Bath ten or twelve days since. She had been tapped several times and was brought to him within four days of her having been seen by her then medical attendant. He was so horrified at the appearance of the patient that he was disposed to refuse to operate. Her medical man, Dr. Bernard, had arranged to return on Tuesday for the operation. On Monday morning the patient sat up in bed, felt sick, and died in an hour. No post-mortem examination had been obtained, but he did not doubt that it was one of the cases described by Dr. Fenwick.

Dr. PEARCE asked whether in these cases of heart-trouble following the removal of tumours the tumours themselves were the subject of much fatty degeneration. He thought they should consider at the same time the analogous condition which followed delivery when for a week afterwards there was a natural tendency to a failure of the heart and a tendency to thrombosis. In fact a fatty degeneration was going on in the pelvis, and possibly also in the heart.

The PRESIDENT said he had put the question as to the specific gravity of the urine because he looked on that point as much more important than the mere presence of albumen in the urine. In many cases of death after ovariectomy or hysterectomy where advanced kidney-disease had been recognised, no albumen had been found in the urine at all, but he had noticed that the specific gravity had always been below 1020. He had therefore come to regard this low specific gravity as more important than the presence or absence of albumen in the urine. That very week he had had to negative the idea of an operation for uterine fibroma because the urine, even examined for fourteen days in succession, varied between 1014 and 1020; a fact which authorised the diagnosis of advanced kidney-disease.

Dr. BEDFORD FENWICK, in reply, thanked the various speakers collectively for their kind criticisms. In answer to

Dr. Parsons, he said that he had, in his work on the subject, carefully eliminated all known causes of fatty degeneration before he felt persuaded that in these cases the abdominal tumour pressure was the cause of the disease of the heart's muscle. With reference to Dr. Pearce's remarks, he had not noticed any relation between the cardiac change and any change in the wall of the abdominal mass, nor even if such existed would it alter the fact of the heart-affection being the direct cause of death. He knew that one or two theories had been started as to fatty degeneration of the heart following pregnancy, but he had never seen or heard of a case in which the condition was found *post mortem* soon after delivery in which there was not present some other and more probable condition to account for the disease.

Dr. HEYWOOD SMITH exhibited a fibroid uterus, with ovaries and oviducts attached, weighing $7\frac{3}{4}$ lbs., which he had removed from a lady, æt. 39, at Warrington Lodge on the 6th inst. The history of the case dated back five or six years, after a fall forwards down a flight of steps, soon after which she began to feel a lump above the right inguinal region, which increased, and more rapidly so during the past year. There had also lately been more pain. Catamenia æt. 13. Regular till after the fall, since when there had been profuse menorrhagia, occasionally twice in the month. The last period was Nov. 23-30. The tumour reached about 2 inches above the umbilicus, and on the left there appeared to be a separate outgrowth. The cavity of the uterus measured $7\frac{1}{2}$ inches. At the operation the tumour was extracted by an incision that did not extend more than 1 inch above the umbilicus; the outgrowing tumour was first pulled out, like a child's arm, and formed a handle by which the uterus was drawn out of the wound. In passing the serre-nœud and tightening the wire it broke, but Dr. Aveling's serre-nœud was at once substituted and the operation finished. The peritoneal covering of the stump was drawn in by a running suture of silk and treated with solid perchloride of

iron and iodoform. The wound was closed by fourteen silk-woven sutures and three superficial, the one next above the stump passing through its peritoneum. On opening the cavity of the uterus a soft polypus, the size of a Tangerine orange, flattened, was found growing from the fundus—a condition that obtained in a specimen exhibited by the President a short time previously. The patient was doing well. Dr. Heywood Smith then drew attention to the fibroid outgrowth and to the numerous separate fibroid tumours, some of them of considerable size, that were embedded in the uterine walls, and, in view of the exceedingly strong remarks made by Dr. Thomas Keith, in a paper published in the 'British Medical Journal' for December 10, against the operation of hysterectomy, wished to ask the Society whether the electrolytic method of Apostoli would have had any beneficial effect in the case of such a tumour as he now exhibited, and whether many cases did not arise where it would be worse than a waste of time to subject a patient to such treatment with the probability of having to have recourse to the operation of extirpation after all. He contended that, while it might perhaps be defensible in the case of a rich patient who could afford the time and money, Apostoli's method could not be advised in the case of a poor woman who had to get her living, and could not afford a prolonged or expensive course of treatment.

Dr. FANCOURT BARNES was glad to be able to take this opportunity of entering his protest against the indiscriminate and reckless use of electric currents in the treatment of fibroid growths of the uterus. From the beginning he had viewed both the operation of hysterectomy and the electrolytic treatment advocated by Apostoli with grave doubt. Certainly the mortality from the operation was not encouraging. But he thought it more than probable that the results which would ensue from the passage of electric currents through human tissues would be still more fatal to the patients. He had in his wards at the present moment a patient with a fibroid tumour of the uterus whom he had allowed, at her own

request, to be treated by Apostoli's method by one of his colleagues. The result was that her temperature rose, within a few days after, to 103° F., and, in addition to developing various symptoms of blood-poisoning, she has had a painful swelling in the axilla, with pain in right elbow-joint and phlebitis of the right arm. In fact, her condition has been for several weeks very serious. Having carefully studied the cases published by Dr. Apostoli and others, and having regard to cases within his own personal knowledge, he was convinced that the treatment of fibroid tumours of the uterus by electrolysis was fraught with great danger, and he felt sure that if it were carried out to any large extent it would cost many lives which would not otherwise have been endangered.

The PRESIDENT said that a very important question had been raised by Dr. Heywood Smith. He proposed to defer the discussion to another opportunity, when members would have had the time to study the question.

On the motion of Dr. Rutherford, seconded by Mr. Lawson Tait, the discussion was adjourned until the second meeting in February.

Mr. LAWSON TAIT asked if that evening was to be devoted to the discussion of the electrical treatment. He said that an attempt to discuss it at the Obstetrical Society the other night had proved the greatest fiasco, and expressed the opinion that a whole evening should be given to the subject.

In reply to Dr. Heywood Smith, the President said that the specimen might be brought forward again on that occasion.

Mr. LAWSON TAIT exhibited a gall-stone which he had removed from a patient aged 58: it was one of the large solitary kind. The gall-bladder was in a condition of acute suppuration, containing some ounces of foetid pus, and the patient's sufferings were extremely severe. At the operation the gall-bladder was found to be adherent to all the deep structures and surrounding viscera, and its removal, if that had been attempted, would have been impossible. He emptied it, removed the gall-stone, and stitched it to the parietal peri-

toneum, performing the usual operation of cholecystotomy. The patient made an easy and rapid recovery. The stone itself formed an admirable example of the kind of stones which are found often to obstruct intestines, specially at the ileocæcal valve. In such cases he had broken the stones from within the intestine by piercing it with a small exploring needle, which he exhibited, entering the needle from the empty part of the intestine below the obstruction. After breaking it up the fragments passed on into the cæcum, and the patient made an easy recovery.

He had a similar but more striking instance of obstruction at the same spot in a recent case of a young gentleman who had manufactured a large plug of hard caseine. Most serious symptoms of intestinal obstruction supervened, and at the request of Dr. Willoughby Wade and Mr. Evans, of Sutton Coldfield, he had opened the abdomen, discovered the seat of the obstruction, and broken up the clot by pressure with forceps; the fragments passed into the cæcum and the patient recovered, the fragments of the clot being afterwards passed in a copious liquid motion.

Dr. JOHN SHAW said that he remembered a case of typhoid fever in which the patient had vomited a body in size and colour very like a silkworm's cocoon, and of such hardness as to resist any moderate pressure by the fingers. On examining a scraping from a section it was seen under the microscope to present the fat-globules of milk; it was in fact a hard mass of clotted milk.

On the Use of Local Blood-letting in Gynæcological Cases. By
BEDFORD FENWICK, M.D., M.R.C.P.; Assistant Physician to the City of London Hospital for Diseases of the Chest, Victoria Park; Senior Assistant Physician to the Hospital for Women, Soho Square.

It is just sixty years ago since the great clinical teacher of that day, Dr. Marshall Hall, wrote the memorable words which are sometimes quoted now when the subject of vene-

section is discussed: 'It would be difficult to determine whether greater injury has risen in the practice of physic from undue or from inefficient bleeding. To neglect the full use of this most important of our remedies when it is required, or to institute it when it is not so, is equally to endanger the safety of the patient.' When the celebrated lecturer and most practical physician uttered these weighty words he could proceed to say, 'It sometimes requires no little boldness to abstain from the use of the lancet. Blood-letting is not only the most powerful, but the most generally used of all our remedies.' How essentially and widely different our theory and our practice is to-day need hardly be insisted on. A distinguished practitioner once told me that he had never drawn an ounce of blood nor even seen a cupping-glass in all his life. A clinical teacher will name a dozen drugs as useful in uterine disease, but in all his course will never once, perhaps, suggest a single leech. In fact we seem to shrink from the lancet as if it were an assassin's dagger, and to look upon the bleeding basin and the measuring tube as murderous relics of a bygone and a barbarous age. Whether we are wiser than our grandfathers in this appears, I must confess, to me more than doubtful; for the more I see of the incalculable benefits of blood-letting, the more am I convinced that the whole question of its employment in the treatment of disease has yet to, and must soon, be settled on a scientific basis; and this alike for the credit of the profession and the benefit of the public to which it ministers. Because a century ago the sick were salivated into toothlessness by mercury employed in empirically extravagant excess, there naturally arose a public prejudice against the drug, which, reacting on the profession, practically for many years banished it from the *Pharmacopœia*. But that fear gradually passed away, and the advantages of the metal in its various combinations are again universally recognised, because now its preparations are administered only for definite reasons and under definite rules. And to-day public and professional prejudice persists in believing no good of a remedy, though its use be sanctioned by the pre-

cept and the practice of the greatest and wisest physicians, and by the enlarging experiences of its curative power through two thousand years; and this merely because it was, like mercury, empirically employed, and therefore utterly abused sixty years ago. I feel, however, constrained to believe that now, when we are searching and ransacking earth, air, and water for new medicinal aids, the time must surely soon come when we shall understand when, where, and how to employ venesection, our most natural and our most invaluable adjunct in the treatment of disease. In a paper published five years ago I tried to show the great benefits derived by a rational use of blood-letting in some cases of heart disease.¹ I desire now to produce evidence that in some gynæcological cases also we have in local bleeding a 'most important and a most powerful remedy.' In the last few years I have employed the treatment in more than a thousand cases. But having no general rules or clear indications to guide me in the selection of patients for whom the treatment was most appropriate, I was groping in the dark for long, and oftentimes used it at first in cases where I would not utilise it now; and that is my apology for bringing the matter before this Society. Feeling deeply alike its great importance and my own difficulties at first in its execution, I hope by this paper not to bring forward anything new either in theory or practice, but to invite some who have never hitherto done so to employ the remedy in future, and to elicit from those Fellows who have experienced its advantages some further details as to its use and its usefulness.

The local abstraction of blood in gynæcological cases can be attained either by leeches or by scarification—i.e. free puncturing of the cervix uteri—or by cupping. The first, and of course the last method I have chiefly used for external application on the abdomen or round the anus, where the creature can be easily applied and easily controlled. But as I know that many eminent and shrewd practitioners leech the cervix, I would state what I believe to be valid objections to that procedure. Leeches are, in the first place, somewhat awkward to

¹ *Lancet*, vol. xx. 1882, p. 179 *et seq.*

use and difficult to apply to the cervix successfully ; secondly, they individually draw very little blood ; thirdly, they leave a wound which in some individuals heals badly ; and finally, they are endued with a spirit of intense curiosity, and this leads them to explore the interior of the uterus, the Fallopian tube, and even the abdominal cavity if an opportunity be afforded them. I have heard of a case in which sudden collapse due to hæmatocœle, followed by severe pelvic cellulitis, ensued on the disappearance of a leech from a cervix which it had been, the operator thought, contentedly chewing. The patient happily recovered after many months of illness—under the care of another practitioner, it may be noted. What became of the leech the historian was therefore unable to say. But scarification of the cervix, carefully performed, is a perfectly safe and perfectly simple operation. The patient is laid on her left side, with the hips quite out to the edge of the couch, and the knees well drawn upwards. A Fergusson's speculum, of as large a size as the vagina will permit, is passed, and the cervix brought fully into view and cleaned with a mop of cotton wool. The best form of scarifier is a sharp-edged, lance-shaped knife mounted on a long handle. The operator, sitting or kneeling with his head on a level with the speculum, steadies this with his left hand, while his right, holding the knife pen-fashion, passes the blade up the passage and punctures the cervix at as many points as he thinks necessary, to a depth of about an eighth to a sixth of an inch each. A small basin is now held under the mouth of the speculum to catch the blood, and its flow is assisted by the injection of warm water. As the cervix becomes blanched the bleeding lessens and finally ceases. An injection of hot water is then given to wash away the clots, and a large plug of cotton wool, which has been well soaked in glycerine, and round the middle of which a long piece of twine is tied, is packed round the cervix and the speculum withdrawn, leaving the end of the string outside to enable the patient to withdraw the plug in twelve or fourteen hours' time. There are several practical points to be well remembered in the procedure, which

I would specially insist on, as each has been impressed upon my mind by experiences which I need not relate in detail. When there has been long-standing congestion the mucous membrane and its subjacent tissue are almost always hardened and thickened in consequence, and the punctures therefore have to be made more deeply and more freely than usual to make blood flow. Next the knife-edge should be very sharp; if not, the pressure necessarily used may send the knife much deeper than wished, and the wounding of deep vessels produces profuse bleeding. Again it is always well to warn the patient not to move, and what is going to be done, otherwise a sudden frightened jerk on her part may drive the blade even up to its hilt. The punctures should be confined strictly to the cervix, and in every case that part should be well in view and well cleaned before the knife is applied. If the speculum slips, or in any way the vaginal wall be punctured, as I have known happen to inexperienced or careless operators, furious and even dangerous hæmorrhage may be caused. I have never known punctures made in the way I have described—merely through the cervix—to cause bleeding which could not be stayed by a minute's firm pressure of a wool mop; and it is most important that in every case all bleeding should be quite stopped before the patient is allowed to rise from the couch. The advantages of the plug are great; the glycerine maintains of course a drain of serum from the punctures, and so continues and increases the depletory action, and the cotton wool acts also mechanically as a direct support to the vagina and uterus. Such, then, is the *modus operandi*. In general terms the cases which I have found most suitable for and most relieved by local blood-letting are—1. By scarification of the cervix where that part presents a deep red-bluish or purple appearance, evidencing much or long-continued congestion of the uterus, always remembering, of course, to make sure that the condition is not due to pregnancy. 2. By cupping or leeches over the ovaries where throbbing, burning pain in those regions is the chief or only symptom. 3. By leeches around the anus in cases where the

fons et origo mali evidently is the presence of inflamed hæmorrhoids, prolapsus recti, inflamed carunculæ myrtiformes, and such-like congestive conditions. The following cases, then, are each typical examples of large classes:—

CASE I.

Conical Cervix.—Dysmenorrhœa.—Dyspareunia.—Eleanor McM——, æt. 34, was married at 23, but has never been pregnant. The catamenia commenced at 15; have always been regular but scanty, with pain before and during the period. Since marriage the dysmenorrhœa has been much worse. There has also been an increasing amount of dyspareunia and pain in both ovarian regions, at first only occasional, but gradually becoming more often felt, and for some time past having been quite constant. Micturition also has latterly become very frequent, sometimes every fifteen minutes, till at last she says her ‘life is a perfect burden’ to her. On examination there was found a conical cervix, almost blue in coloration. She came to the hospital on April 12, 1884, and the cervix was freely scarified on that day. She returned the following week to say the pain in the ovarian region had been at once relieved, the urine more free and less frequently passed. The cervix was still rather congested, and scarification was repeated. From that time she rapidly improved; dyspareunia became much less. On May 2 to 4 the menstrual period was on; the loss was normal, but the pain was less than it had been for years. Her general health improved, and in June she ceased to attend. In January 1885 she came back to the hospital, her previous symptoms having begun to return. The cervix was again found very congested, was again scarified, and in less than a month she ceased attendance, feeling ‘quite well.’ In December, however, she returned, saying that her pains were coming back, and earnestly requesting ‘to have blood drawn.’ The cervix was once more scarified. She reported herself the following week as ‘perfectly well,’ and has not reappeared since. Now this case had been taking medicines of every kind at well-known hos-

pitals for more than ten years without relief, except from a herbalist, who nearly purged her to death, whereby, of course, he relieved the overloaded pelvic veins. All the medicine I gave her was an acid tonic and blue pill occasionally. The improvement in the general health coincidently with the rest of mind from pain and the rest of body at night was most striking, for the frequency of micturition, due doubtless to pelvic hypervascularity, had broken her sleep for months. When first seen she was looking haggard, worn, and white, with drawn features and tired, heavy eyes. By December 1885 she had grown stout and ruddy, walked briskly into the room, and made merry when a doubt was thrown upon her identity. All she had suffered from was local congestion, and nothing but local depletion, common sense would say, and practical teaching confirm, could or would cure her.

CASE II.

Kate M., æt. 27; married four years; had had two children; no abortions. Since her last labour, two years before, had had severe bearing-down pains on the slightest exertion and constant severe pains across the loins. Micturition for some months had been scanty but very frequent. She went to a large general hospital, where an instrument was placed, but such 'dreadful pains' followed that a local doctor was called in, who removed it. On February 3, 1885, she came to the Hospital for Women. The uterus was found to be low down in the pelvis and acutely retroflexed and heavy. Great tenderness was evinced when pressure was made on the fundus. The posterior lip of the cervix was very large, full, and quite bluish from old-standing congestion. It was perfectly plain that such a tender engorged uterus could not bear the pressure of a hard, unyielding pessary. The cervix was therefore freely scarified and a glycerine plug placed. An aperient tonic was prescribed and acted freely. On February 10 the fundus was found distinctly smaller and much less tender. It was replaced easily, and the same Hodge pessary which had previously caused her the 'dreadful pains' was

adjusted with comfort. All her symptoms were relieved at once, and she became pregnant shortly afterwards, while the rapid improvement in her general health was most marked.

CASE III.

Lacerated Cervix.—Subinvolution.—Elizabeth M., æt. 29 ; married seven years ; had had one child six years previously, since which she had suffered more or less constant pain in the lower part of the back and abdomen, with much yellow or coloured discharge and frequent micturition. On March 5, 1885, when she came to the Hospital for Women, the cervix was found large, deeply lacerated, the lips being everted, hard, and deeply congested, almost purple in colour. The uterus was very heavy, large, and tender, the sound passing $3\frac{3}{4}$ inches. She had been under treatment at two general and one special hospital, at each of which she was advised to have an operation done. She was scarified five times. Ergot with an aperient tonic mixture was given, and in three months the uterus only measured $2\frac{3}{4}$ inches. The cervical lips were soft and pale, and healthy as to size, while the general health and strength had coincidentally greatly improved, and she then ceased attendance. Theoretically, I presume, this woman should have had Emmet's operation performed, or at least should have been confined to her couch with frequent intra- or extra-uterine cauterisation. But I contend that the treatment adopted was, and is, for such cases more scientific, more common-sense, and much more satisfactory.

CASE IV.

Endocervicitis.—Sterility.—Jane C., æt. 25 ; married three years ; never pregnant ; came to the Hospital for Women in May 1886 complaining of pain, severe and constant, in the back, profuse discharge, and of sterility. The uterus was normal and healthy, but the cervix was large, soft, very congested, and granular. The os was plugged with the typical endocervical mucus. She was scarified weekly for three weeks, a tonic aperient mixture given, and hot douches

ordered night and morning. In three weeks the erosion was healed, the cervix was pink instead of bluish in coloration; the discharge had almost ceased. She missed her next period and returned three months afterwards to know why they had not reappeared, and was agreeably surprised to learn that she was pregnant.

CASE V.

Subacute Ovaritis.—Ellen M., aged 24, single, a teacher, consulted me last December for attacks of severe burning pain in the left side and down the thigh, which come on after over-exertion or a chill and last for weeks, quite incapacitating her from work and causing her to lose flesh rapidly. Her present attack came on a week previously after getting wet. The temperature was 100° F.; the pulse was 90° and excitable. The uterus and cervix seemed healthy, but there was an undefined fulness and great tenderness on pressure over the left ovarian region. Leeches—first five, then four—were applied over the painful part and relieved her at once and completely. The pain went at once, the temperature fell, and she was out of bed in three days. She had a relapse in March, when I tried dry-cupping, and with some relief; but when four leeches were applied, followed as usual by a poultice to encourage bleeding, the pain disappeared altogether, and she has been, I understand, perfectly well ever since. She had once consulted a well-known London specialist, who advised her strongly to have an operation done; but, as he said it involved a risk to life, she declined to undergo it.

CASE VI.

Cardiac Disease.—Scanty Menstruation.—Ellen B., æt. 31, single, came under my care in 1884 at the Victoria Park Hospital; she had had acute rheumatism and there was mitral stenosis to a marked degree. Except, however, palpitation, which was easily relieved, she had no cardiac symptoms. But she complained much of a constant sense of 'fulness' in the lower part of the abdomen, greatly increased, with pain in

both ovarian regions, before, during, and after each menstrual period, the loss at which was always very scanty. I sent her to the Hospital for Women, and then found that the cervix was quite bluish and that there were hæmorrhoids, which, however, rarely bled. Leeches round the anus and scarification of the cervix rapidly reduced the local congestions and relieved the pain and discomfort complained of. Unfortunately, however, the cause of the vascular stasis, the organic lesion in the heart, maintained its evil effect, and for many months she came now and then to the hospital, saying that her pains were returning and asking to be leeches, and several times remarked that her heart was always so much more quiet after the loss of blood. This summer, however, she suddenly became acutely maniacal and had to be placed, I believe, under restraint. I might multiply these cases indefinitely. Those I have narrated are but typical examples, each of a large class. But I must not trespass on your forbearance nor your patience further. The conclusions I would draw in brief are these :—

1. That where the cervix uteri is deeply congested deep-red, bluish, or purple in colour local depletion by scarification generally gives immediate relief.

2. That where this congestion is caused and kept up by flexion of the uterus obstructing the return of the venous blood from the cervix, and causing chronic enlargement of the uterine veins generally, local depletion allows a pessary to be inserted with safety and comfort to replace the organ, which almost certainly could not otherwise be tolerated.

3. That in every case, of course, the possibility of the patient being pregnant would be investigated before scarification were attempted.

4. In cases of subacute ovaritis or obscure throbbing pain in the pelvis cupping or leeching externally frequently relieves the patient immediately.

5. In cases of vaginismus from inflamed hæmorrhoids or other rectal congestive conditions leeches round the anus give rapid relief or cure.

6. That scarification is the simplest and safest method of abstracting blood from the cervix with the precautions I have enumerated, leeches or cupping being kept for external use only.

I have endeavoured, therefore, gentlemen, to show that where we have much local congestion in gynæcological cases, local abstraction of blood is the most natural and invaluable treatment. My aim has been not to say anything new or tell of anything which many of our leading brethren here assembled do not already know and utilise by the insertion of this paper in our widely read Transactions. But if I can only encourage some of our Fellows who have never hitherto employed it to use the remedy in future in suitable cases and to publish abroad their successes in their turn, I fervently hope that in time we may break down the barriers which Empirical Extravagance and its first-begotten child—Irrational Prejudice—have between them built up against the employment of blood-letting in disease.

DISCUSSION.

Dr. MANSELL-MOULLIN mentioned that there were very few cases in which he found it necessary to abstract blood—in fact, he only did so in two classes of cases. In plethoric women at the menopause, suffering greatly from heats and flushings, he thought it might be of benefit to withdraw blood periodically. He would also use this remedy where menstruation had been suppressed. As for relieving congestion of the uterus by local abstraction of blood, he believed it was as much good as making a hole in water. The uterus was a most convenient position in which to withdraw blood; a patient could be drained as effectually through the uterus as by withdrawing blood from the arm; no subsequent ill-effects were to be feared; so far from alarming patients they generally liked it.

Dr. SINCLAIR said there was one large class of cases, which had not been referred to, which, in his experience, was improved by local blood-letting, viz. where the uterus was

large in women who had borne children, in whom there was evidently some subinvolution and with perhaps traces of pelvic inflammation, together with more or less laceration of the cervix, and sometimes flexion. In these cases he had for several years begun with Emmet's operation, extirpating a wedge-shaped piece from the side of the cervix. A considerable amount of blood was of course lost during the operation, but he had been struck with the rapid evolution which followed. The removal of a considerable wedge led to some more important changes in the blood-supply and to rapid involution and cure of the individual case. In these as in the other classes of cases mentioned he did not look upon the abstraction of blood as the essential point in successful treatment. Women, as a rule, objected to being scarified, and the application of the glycerine tampon seemed, so far as depletion was useful, to serve the same purpose.

Dr. PEARSE called the attention of the Society to some common conditions where local bleeding was followed by great relief. It was very difficult to understand why the abstraction of a small quantity of blood should give relief not only locally but generally. In piles the bleeding was followed by not only immediate relief, but by more lasting benefit. The same remark applied to varicose ulcers. Speaking generally, the question of blood-letting brought back the old antiphlogistic treatment to one's mind, but there was one point which they should bear in mind. In the olden days when disease was, in the majority of cases, supposed to be due to traumatic conditions, such as wounds of the ribs, lungs, or pleuræ, the patient was bled; but he thought they had to distinguish between ordinary inflammatory action and that due to specific causes. It was held at present that it was absurd to bleed for such a condition as acute specific pneumonia, because it was not an ordinary inflammation, but an acute specific disease. He reminded the Society that in the condition of infective epididymitis—a perfectly analogous condition in the sense of its being a purely infective process—antiphlogistic treatment was undoubtedly of use, and if

they used it in one case why not in another? In cases where the specific inflammation was due to traumatic influences, he thought they were justified in resorting, not only to local, but to general blood-letting. No one denied, he supposed, that in mitral disease the abstraction of a few ounces of blood was followed by great relief, and, again, in severe whitlow everyone was aware of the relief produced by sufficiently large doses of aconite.

Dr. HEYWOOD SMITH had hoped for more genuine information on the gynæcological bearings of venesection. His own experience was that stabbing or perforations of the cervix, followed up by glycerine, very much facilitated the reduction of the congested condition. So also, with regard to passive congestion, ovaritis, and congestion of the uterus, the application of leeches or scarification certainly tended to relieve the pain. The treatment of inflammatory conditions in gynæcology by bleeding was a serious question, and one well worthy of consideration. He thought it was a pity that the question of venesection should have been allowed to become a victim of theories. He was sure that a number of cases would be very much benefited by a proper recourse to the old-fashioned practice of bleeding with the lancet. People were not taught which was the right time to bleed. He himself had had the advantage of seeing the immense benefit of it in peritonitis, &c. and he was certain that he had saved life by resorting to it; also in hæmoptysis, from passive congestion of the lungs, which might be relieved in a few minutes by venesection. He regretted that people looked down with scorn on venesection. With regard to the proper time for bleeding, he said that this only lasted a few hours, and very often the intense wiriness of the pulse, &c. had passed away before advantage had been taken of the opportunity. Once these signs had passed away it was worse than useless; but so far as local blood-letting in chronic cervicitis was concerned there could be no doubt that it was of the greatest use, and in conditions of pain from vascular tension generally.

Dr. GRIGG said that when he began, scarification and local

bleeding were the rule of the day, and he was therefore enabled to form and give an opinion upon it. Most people practised it then more or less, but he could not help feeling surprised at Dr. Fenwick's assertion that scarification was a perfectly safe operation. He did not believe that there was one man in fifty, with any large experience of scarification, who had not had at least one fatal case, or nearly so. He had seen a case of this kind with Dr. D——, and it had given him such a shock that he had almost entirely given up the practice, although he had been doing it for years under the impression that it was a perfectly safe operation. The use of the glycerine plug could not be depended upon for arresting the hæmorrhage. He might incidentally remark that since 1872 he had never passed an instrument into the uterus without introducing a glycerine plug into the vagina, nor that he ever scarified without the same thing. He quoted the case of a patient on whom he had made one or two small punctures, giving rise to very trifling hæmorrhage, and who had then been allowed to go away. She fainted, however, in the omnibus, and had a most alarming hæmorrhage, which he had the greatest difficulty in stopping. He wished the younger men would remember that it was *not* a perfectly safe operation, and he certainly would advise them not to do it indiscriminately.

As to hot douches, he said, although in moderation a very useful remedy, it had become quite a mania at present. He had come to the conclusion, after seeing several cases in which the ill-effects of this method of treatment had been made evident, that it was a remedy requiring caution in its use. He mentioned the case of a lady who had been subjected to this treatment for four months three times a day, and who was then in quite a pitiable condition—a perfect wreck. In another instance of two months' treatment the result was equally deplorable. This wholesale and exaggerated use of the hot water douche was the consultant's best friend, for if it continued the consulting-rooms of obstetric men would be crowded; if he considered his own pocket he would

strongly advise its prolonged use, but it was a totally different thing to the patient. These remarks were equally applicable to the bi-diurnal task of douching for the first month or six weeks after delivery.

Dr. FENWICK asked Dr. Grigg whether he had found the bleeding points in the case he had quoted of profuse hæmorrhage, and whether they were on the cervix or vaginal wall.

Dr. GRIGG replied that he had—on the cervix.

In reply Dr. BEDFORD FENWICK thanked the various speakers collectively for their kind commendation and criticisms, and in answering Dr. Pearse, referred him to Trousseau's works and to the clinical lectures of Murchison and Marshall Hall, who all agreed that in pneumonia bleeding only did good in the sthenic type of the disease. He rallied Dr. Mansell-Moullin on having himself answered the objections to bleeding which he had raised, and especially, while saying it did them no good, confessing that patients felt benefited by the treatment, and asked for it to be repeated. He ventured to think Dr. Heywood Smith did not express the feeling of the meeting in wishing that Dr. Fenwick had said more upon the subject, for his paper was strictly limited to *local* blood-letting. But with Dr. Grigg he joined distinct issue. Dr. Grigg warns the Society not to scarify the cervix with a light heart, and upbraids Dr. Fenwick for saying the operation is simple and safe—and why? Because after doing that very thing himself for eight or ten years he had one patient who nearly bled to death after it! But he confesses that this patient was bleeding still when she left his room. And that is the very thing Dr. Fenwick in his paper specially warned against, and strenuously advised that all bleeding should be stayed before the patient even rose from the couch. So he would, with all diffidence, once more repeat that, *with proper precautions*, he believed that local abstraction of blood by scarifying the cervix was not only effective, but a perfectly safe operation.

The Society then adjourned.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, JANUARY 11, 1888.

G. GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., PRESIDENT,
IN THE CHAIR.

PRESENT: 31 Fellows, 2 Visitors. The following were elected Fellows of the Society:—Dr. C. Arrol, Dr. E. S. Ricketts, Dr. C. Donkin, Dr. W. W. Cuthbert.

Dr. BEDFORD FENWICK showed some drawings and engraver's proofs of the microscopic appearances of the case of fatty degeneration of the heart from abdominal pressure which he had brought forward at the last meeting of the Society. On that occasion several Fellows had complained that with the deficient light then in use they were not able to see the degenerative changes clearly. He had therefore commissioned Mr. Daniellsson to prepare these drawings for this meeting. They showed most beautifully how the fat-cells had pushed apart in some places muscle-bundles, and in others had resulted from the metamorphosis of muscular tissue, and made it quite plain how completely lost all power of contractility must be in such cases, and accounted for the pause, the falter, and the stop of the heart's action in sudden death from this disease.

Mr. REEVES showed twins from a case of hydramnios. The patient, aged 21, was in her second pregnancy, at the fifth month. On admission there was a pyriform swelling extending to between umbilicus and ensiform cartilage, giving a distinct fluctuation wave: this soon increased and altered in shape. The patient complained much of pain, and after

consultation it was decided to perform abdominal section, as a cyst of the ovary or broad ligament was thought to be complicating the pregnancy. Exploration revealed that the case was one of hydramnios. The womb was then emptied, after the abdomen had been closed, and the woman made a good recovery. Mr. Reeves alluded to the rarity of the condition, and said that in cases of doubt it would, he thought, be better to decline to interfere until the uterus had been emptied ; then the diagnosis would be cleared up, and the risk to the patient minimised ; and even if the abdomen had been opened he would in a similar case much prefer to have the uterus emptied to doing a Porro, for the risks of a premature delivery were, he thought, much less than those attending a Porro. The pathology of the condition needed working out, but it nearly always seemed associated with twins. In this case one foetus was hydrocephalic, and it was chiefly one set of membranes which was affected.

Dr. HEYWOOD SMITH asked whether in such cases a diagnosis could not be arrived at by observing whether, even in thin-walled uteri, palpation did not call forth uterine contractions. With regard to what Mr. Lawson Tait had said about cases of hydramnios being invariably of twins, he was called some years ago to a case in which there was, so far as he recollected, but one child ; but he would make inquiries about the case and state the result at some future meeting.

Mr. PHILLIPS HILLS said: I should like to ask Mr. Reeves whether, by previous history, examination at the time of operation or since, he can say whether the uterus of this patient was naturally a bicorned one, that being an interesting point affecting the question of twins, apart from the point of hydramnion ?

Dr. BEDFORD FENWICK said that he could answer Dr. Heywood Smith's question also, for he had seen the case under discussion first as an out-patient under his own care at the Hospital for Women, and he pointed out to those medical men then working with him that there was no doubt of the pregnancy, and that the only way to differentiate between the

uterus and this obscure swelling on the left side was by feeling the uterus contract under palpation. But he tried, and his clinical assistants tried, and no one could feel anything like uterine tissue anywhere. It all felt, as Mr. Tait had aptly described it, like a 'paper bag of water.'

The Nature of the Hymen.—By J. BLAND SUTTON, F.R.C.S.
Assistant-Surgeon to the Middlesex Hospital.

(A Supplemental Note.)

Two meetings ago I ventured to bring under the notice of the Society some observations relating to the probable nature of the hymen. Since the paper was read Dr. Matthews Duncan has been good enough to draw my attention to some instances of the occurrence of a hymen in cases of absence of the vagina, and of atresia vagina in which a normal hymen was clearly detected. Briefly the matter stands thus :—

In 1882 Dr. M. Duncan¹ published some observations 'On Cases of so-called Imperforate Hymen,' in which some instances of retained menses are discussed, due to what is ordinarily called imperforate hymen. Subsequently a careful examination showed that the cause of the obstruction was situated above the hymen, the latter structure being to all intents and purposes normal.

Further, in some few instances a hymen has been detected, but on dissection no vagina or uterus was found. An analysis of these cases is in no small degree interesting, for they support my contention in a remarkable manner.

It is a fact well known to surgeons that an imperforate rectum may occur in association with a normal urethra and vagina. Not infrequently the rectum may terminate by way of the urethra in the male or vagina in the female. These conditions arise from the circumstance that the proctodæum may fuse with the urinogenital section of the cloaca, and not with the rectum, or unite with the gut in an imperfect manner.

¹ *Trans. Obstet. Soc.* xxiv. London, 1882.

The converse of this is true; the rectum and proctodæum may unite as usual and establish an outlet for the bowel, and even fuse with the allantois to form a urethra, but joins imperfectly with the urinogenital section of the cloaca. From this cause three degrees of imperfection may arise:—

1. The proctodæum and vagina come into contact and coalesce, but the septum is intact. This is true imperforate hymen.

2. The two segments—proctodæum and vagina—approach, but fail to meet. The hymen, as representing the cul-de-sac

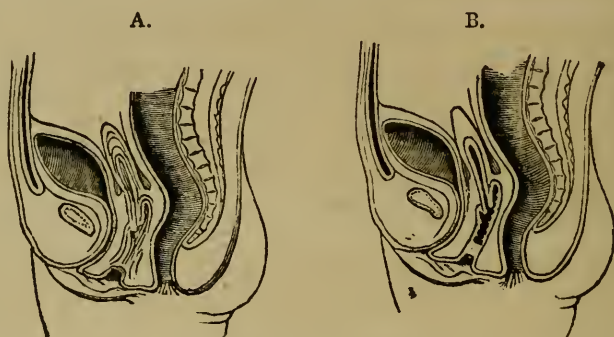


FIG. 5.—A. Imperfect development of vagina, with a hymen. B. The vagina ends in a cul-de-sac at a point above the hymen.

of the proctodæum, is present, but the lower end of the vagina is a blind pouch. When puberty arrives this becomes distended with menses, bulges upon the hymen, perforates it, and presents at the labia as a rounded fluctuating swelling.

3. The proctodæum is invaginated as usual, but the vagina is not developed, or, if formed, fails to grow *pari passu* with the surrounding parts: it may become reduced to an almost impervious cord. In such a case the external genitals are well formed, and a hymen may exist.

These cases make it clear that the hymen is derived exclusively from the proctodæum and from that portion of it which fuses with the vaginal cul-de-sac.

Dr. Matthews Duncan further drew my attention to a paper by Budin relating to this curious fold.

The observations of Budin referred to were published in 'Le Progrès Médical,' 1879, p. 677 and onwards. The following are his concluding remarks :—

'L'hymen en tant que membrane propre, spéciale, distincte, indépendante n'existe pas. La membrane qui apparaît sous les yeux lorsqu'on examine les organes génitaux, et qu'on a décorée du nom d'hymen, n'est autre chose que l'extrémité antérieure du vagin faisant saillie sur la muqueuse vulvaire entre les petites lèvres.'

This opinion is certainly not supported by facts, and, as a hymen exists when the vagina is absent, it cannot be derived from that tube. This alone is sufficient to cause Budin's notion to go to the ground, independently of the embryological testimony—by far the most reliable guide in these questions.

The TREASURER (Dr. Edis) then read the following financial statement for the year ending 1887, which was approved and adopted.

The PRESIDENT then delivered the following valedictory address :—

GENTLEMEN,—Another year has come and gone, and it is now my duty to return to your hands the trust you confided to me twelve months ago.

The custom of our Society demands that, in doing so, I should direct your attention to our position and prospects, and review the work of the past year.

With regard to our financial position I am happy to say that on the whole it is satisfactory, and that when all our subscriptions come in we shall be quite affluent. I would take this opportunity of reminding our Fellows that promptitude in the payment of the very small subscription which we ask would save our Treasurer a great deal of work that ought to be unnecessary, and would greatly conduce to the efficiency of our Society. You must remember that our Journal makes a heavy call on our resources. But you will bear in mind that this is one of the most important features of our Society, and that everything possible must be done to keep up its high standard. Remember, also, that all the work connected with the editing of our Journal costs us nothing, that the post of Editor is no sinecure, and one of honour only, but entails a great deal of labour (of the extent of which few have any idea), and that it is absolutely necessary that our Editor, to whom we are so much indebted, should have the necessary funds placed at his disposal as freely as possible.

Mr. Lawson Tait rejoiced in telling you that during his year of office sixty-five new Fellows had been added to our list. How much more reason have I to rejoice that during the past year seventy-six new Fellows have been added, and that we now muster the respectable number of over 500! This is a measure of success which, as far as I know, is without a parallel, and amply justifies the action of the promoters of our Society. Moreover, it has been attained notwithstanding determined and even virulent opposition in certain quarters. This opposition has not been confined to

the opposition of a powerful medical journal, that need not be named, manifested in the form of excluding our transactions from its pages. Whether the true explanation of this was furnished by my predecessor, or whether it be due to an idea on the part of its proprietors that by this opposition they can put a stop to certain operations of which they disapprove, because they are totally ignorant of their nature and value, it is needless to inquire. But a still lower depth of degradation has been reached by some members of a nearly allied society, who have not hesitated to apply to one of our Fellows, on the occasion of his seeking a public appointment, what has been euphemistically called the practice of 'boycotting.' It will be gratifying to you to know that the gentleman to whom I refer did not yield to this odious method of persuasion, properly called *intimidation*.

But while we have been thus adding to our numbers I regret to say that death has been at work, especially in what I may call our higher ranks. Thus we have to deplore the loss of two of our honorary Fellows, viz. Professor Schröder, of Berlin, and Professor Gallard, of Paris, and, coming nearer home, we have suffered a still more grievous loss in the death of our first President—Dr. Alfred Meadows. Happily for me, the custom of our Society and the appearance of an admirable editorial memoir in our Journal render it unnecessary for me on this occasion to attempt to speak of him as his merits deserved by recounting his various good qualities. We have also lost two of our ordinary Fellows in Dr. Matheson and Dr. Hugh Sutherland, personal friends of my own—the latter in the early spring of a manhood which gave great promise.

When now I come to review the work of the past year, I am met by the plenitude of material and the difficulty of selection where all is of good quality. But, happily, it is unnecessary for me to deal at any great length with my materials.

Of specimens we have had so many that their name is legion. All have been interesting, many have been of great

value, and some have been rendered still more valuable by the able reports furnished by Mr. Bland Sutton, to whom our Society is so much indebted. It was the intention of the promoters of this Society to make the exhibition of specimens a prominent feature. I have always kept that aim in view, and on one occasion we devoted a whole evening to the discussion of an exceptionally interesting series of specimens. Time will not allow of my calling special attention to any of these, and I will confine myself to the papers.

The year began with a paper on uterine deviations, by Dr. Fitzgerald, in which the author unwittingly paid me a compliment by selecting for his title that of my little work on this subject, viz. 'The Use and Abuse of Pessaries.' It was not inappropriate that my term of office should be inaugurated with a subject in which I have taken so much interest. This paper led to an interesting discussion in which, as usually happens, different opinions were expressed. On this occasion, however, these differences were as to matters of detail rather than principle, and what has been called the mechanical treatment received further testimony in its support.

At a later period the subject again came before us in a paper entitled 'On the various Modes of Treatment of the worst forms of Uterine Flexion,' from the facile pen and wide experience of Dr. Routh. In his usual graphic style the author worked up from principles to practice, and, as I think, conclusively established his position as to the need of an intra-uterine stem in the treatment of flexions properly so called. It is not necessary for me, with my views already in print, and for so many years, to trespass on your patience by following up this subject. But I may be allowed to say that there is nothing which affords me more satisfaction in my practice than the relief I am able to give by a well-adjusted pessary, either vaginal or intra-uterine, in properly selected cases. This, however, presupposes a correct diagnosis. Yet I must say that I see many instances of the improper and inefficient use of these instruments. But is this

the only subject of which this can be said? It is to be regretted that in this, as in many other instances, the treatment is undertaken by men who are wholly ignorant even of first principles. Would you blame the method because of its wrong application?

Allow me to say, for the conventional fiftieth time, that it would very much conduce to a better understanding of this subject if authors would be a little more careful and exact about their nomenclature. It is no uncommon thing to hear *versions* and *flexions* spoken of as if they were synonymous; yet I think it is now becoming more generally accepted that a *version* is to be treated by a vaginal pessary, and a *flexion* by means of an intra-uterine stem either with (as I prefer) or without a vaginal support.

Next in order comes Dr. Purcell's paper on 'Three Cases of Vaginal Hysterectomy for Cancer.' Dr. Purcell is to be congratulated on the primary success of his operations, and his results—further supported by a specimen exhibited at a later period, together with the more recent results obtained in Germany—tend to show that, in favourable cases, the primary mortality need not be large. But can it be said that an operation of such severity is thereby justified? We now know that the final results are of the most disheartening kind. Herein Dr. Purcell cannot claim to be more fortunate than his brethren in this and other countries, for in his last case he had to announce a return of the disease even before he had exhibited his specimen. Dr. Grigg bore strong testimony to the fact that cases of cancer of the cervix often go on for several years if left to pursue their natural course undisturbed by local treatment. This is certainly in accordance with my own observation. I see a great many cases of cancer of the cervix at a period much too late for any surgical treatment, and I now invariably recommend that these cases should be let alone. This is especially advisable in women of advanced age. Of course these remarks apply to hard cancer.

But while cancer of the cervix has shown such a tendency to return in neighbouring parts after the removal of the whole

organ—unless the operation be performed on the first appearance of the disease, in my opinion the only suitable time, when, however, its existence may even be doubted—that the opponents of this operation seem to have strong grounds for their opposition and for their preference for cervical amputation as the less hazardous proceeding, on the other hand there appears to be no ground for difference of opinion when the disease affects the body of the uterus, provided it be recognised at a sufficiently early period—that is, before it has penetrated the walls of the organ.

As usual, we have been indebted to Mr. Lawson Tait for more than one paper of great value. First in order comes his address on ‘The Methods of Cleansing the Peritoneum,’ which was listened to with great attention. I can confirm every word of that address in favour of this practice, for I have employed it very extensively for more than three years, and the more I see of it the more I am impressed with its value. To this, in great measure, I attribute the fact that I have not lost a case of ovariectomy in the Samaritan Free Hospital since April 1885, and I verily believe that the only death which occurred in that year might have been obviated had I resorted to this method instead of attempting to arrest the bleeding, chiefly from the parietes, by applying the actual cautery. I regard this as the greatest advance that has been made in the operation of ovariectomy since the use of the clamp was given up; and to Mr. Tait is solely due the credit of it, though an attempt has been made to confer it on the late Dr. Peaslee without a shadow of foundation. But Mr. Tait’s teaching and my own experience presuppose the absence of any so-called antiseptic substance and the employment of plain warm water.

Of equal value was Mr. Tait’s paper on ‘Flap-splitting’—a principle he first applied in the repair of a vesico-vaginal fistula, and is, perhaps, better known in his operation for ruptured perineum. This method exhibits his fertility of resource and ingenuity in device, and its application has a wide field.

It will fall to the lot of my successor to deal with his last paper, viz. that which treats of the subject of extra-uterine foetation, which has to be discussed at a future meeting ; but I cannot leave the subject without offering him my sincere congratulations on his magnificent results.

We owe to the pen of Dr. Japp Sinclair a paper on 'Missed Abortion,' in which the subject was so exhaustively treated that I need not detain you but for a moment for the purpose of commending it to the notice of those who are interested in the subject.

We now come to a paper of a different order, inasmuch as the subject belongs to the physiological class. Though mainly theoretical, it yet has a very practical application. I refer to the paper by Dr. A. W. Johnstone, of Danville, Kentucky, entitled 'The Endometrium in the Cycle of the Rut.' The importance of Dr. Johnstone's investigations into the nature of the endometrium, the character of the uterus as a whole, and the phenomenon of menstruation were dwelt on by my predecessor, and I shall call your attention to only one point, which may turn out to be of great practical import. Dr. Johnstone, in the paper before us, recalls from his communication of the previous year the following statement, viz. 'the closer you get to the uterine body with your excision (of the Fallopian tube) the more sure you are to stop menstruation ; so also the more sure you are to extirpate the whole of the nerve-plexus imbedded in the tube and broad ligament, thus completely isolating the endometrium from the trophic and vaso-motor centres which control it as they do every other organ.' Does this explain a fact to which I called attention in my second paper on 'Ovariectomy,' published in June 1880? I quote from that paper : 'The occurrence of a sanguineous discharge from the vagina after ovariectomy has been frequently observed by operators. The explanation hitherto offered is that it is due to an effort of Nature to compensate for the sudden reduction of the area of blood-distribution. Were this so we ought to find some definite relation existing between the size and vascularity of the tumour and the oc-

currence of metrorrhagia—that is to say, the larger and more vascular the tumour, the more certain the metrorrhagia. But in fact, this is not the case. The result of my observation is that, in nine cases out of ten, it will be found to occur in the case of short pedicles.’ A case is then referred to in which the patient had metrorrhagia from the third to the seventh day : ‘Both pedicles were very short, and the ligatures almost involved the uterine cornua. I now regard metrostaxis as a matter of course when the ligature is close to the uterus, or when the Fallopian tube is enlarged.’ I asked the question whether this was due to irritation of the ovarian nerves. Dr. Johnstone here gives us the probable explanation. For, while the physical irritation of this nerve-plexus may be regarded as the exciting cause of a hæmorrhagic flow immediately after its application, it is very easy to understand that the division of this nerve-plexus and the consequent interruption of the nerve-current may have the ultimate effect of arresting the menstrual flow by the removal of the stimulus. The practical application of this knowledge is that in the removal of the appendages for the arrest of hæmorrhagia (and even menstruation itself) when the excess is due to the presence of a fibroid tumour in the uterus, and indeed in all cases of this operation, the ligatures should be applied as closely as possible to the uterine cornua, so as to divide this plexus. This so far supports Mr. Tait’s contention that in these cases the removal of the tubes has more to do with the result than the removal of the ovaries. Thus while we were both near the explanation, though on different grounds, we did not quite hit the mark.

My review would be incomplete without a notice of the recent paper of Dr. Bedford Fenwick on ‘Blood-letting in Gynæcological Practice,’ written with his characteristic thoughtfulness, extensive clinical and pathological knowledge, and graphic force. While Dr. Fenwick regarded the operation of puncturing the cervix as a very simple one, Dr. Grigg took exception to this description, though still regarding the practice as a valuable remedy in a few cases. I am inclined

to think that in this as in all other matters it will be safest to tread a middle path, and, while regarding the practice as a most valuable means of cure in certain cases—to which I can bear my testimony in very decided terms—we should not look upon it as quite a simple procedure, but one in which very troublesome bleeding may occur. I have seen such a result follow the operation of puncturing the cervix, and I have heard of its occurrence to an alarming degree from a leech-bite. With regard to the latter I must say that I have not had recourse to this method since I witnessed the passage of a leech into the uterine cavity. It gave me such a fright that I have never had the courage to repeat the practice. In this instance I put some salt on his tail, in the form of a solution of iodine passed into the cavity by means of a probe covered with cotton-wool, and he was speedily captured.

Finally a remarkably clear and intelligible account was given us by Mr. Bland Sutton of the nature of the hymen from a developmental point of view. He described the mode of its development by the invagination of the epiblastic layers coming into contact and fusing with the posterior segment of the primitive gut. The distinction between the two parts remained throughout life, for in the rectum a ridge of adenoid tissue marked the situation where the squamous epithelium of the anus joins the columnar cells of the rectum. In the vagina the corresponding spot was indicated by the hymen or its remains. He pointed out that this fusion and perforation of opposing *culs-de-sac* also occurred in various parts of the alimentary canal, and that on the extent of the process depended the presence at birth of a more or less completely formed hymen, rectum, œsophagus, or alimentary canal.

In addition to these papers of a more or less formal character we have had several cases brought before us in the form of reports.

Thus Dr. Fancourt Barnes reported an interesting case of the removal of a hair-pin from the female bladder by an opening in the vesico-vaginal septum. The discussion revealed the extraordinary variety of substances and bodies

that women make use of for the purpose of delectation, though the hair-pin seems to possess a peculiar charm. Perhaps it is that it is the most ready to hand.

Then we had a report by Dr. Cordes, of Geneva, on a case of dropsy of the amnion, which is worthy of notice from the remarkable origin ascribed to it. If it be true that, in this instance, the dropsy was due to the discharge into the sac of the fluid of a hydrocephalic head of the contained foetus, then the case stands by itself and is deserving of special record.

A case reported by Dr. Holland brought before us a subject which is now attracting a great deal of attention—I refer to the treatment of fibroid tumours of the uterus by means of the galvanic current, a method of treatment which had formerly been tried and found wanting, but which now again has been revived under the zealous advocacy of Dr. Apostoli, of Paris, and has already become the fashion of the day, not, however, without falling a victim to the nickname of ‘——’s new toy.’ That it will not fail again through want of publicity goes without saying, for it has had the advantage of the greatest prominence and most powerful exposition in the pages of the ‘British Medical Journal,’ under the able pen of Dr. Woodham Webb, before the British Medical Association in Dublin, at the International Medical Congress in Washington, and before the American Gynæcological Society in New York, by Dr. Apostoli himself, and in numerous other ways. The young have been fascinated by the novelty, while in some cases perhaps the old have had recourse to it in the place of worn-out or stale methods of retaining notoriety or widening its field. That it possesses the special virtues that are claimed for it I do not for a moment believe; but that it involves the dangers with which it is credited I am firmly convinced. Of the latter we have evidence in the cases reported by Dr. Chadwick, of Boston, and Dr. Ephraim Cutter, of New York, and in the case reported to our Society by Dr. Holland, and still more conclusively in a case which, I have been informed, has had a fatal termination in the hands of the same operator. Moreover, we have the testimony of

Dr. Fancourt Barnes as to one of the results of its first application in the Chelsea Hospital for Women, and I hear of similar results at one of our general hospitals. Let it be granted, for the sake of argument, that these bad results were due to imperfect knowledge of the agent and its use; its dangers are only thereby made the more evident. But I do not allow the validity of the argument, for at the general hospital referred to the operator was a distinguished electrician.

Nor do I believe that a true electrolytic action is exerted by the galvanic current. This presupposes an electric affinity on the part of neoplasms which they have not been proved to possess. For Dr. Apostoli himself admits that he has never known a tumour to disappear under this treatment. Nor do his disciples claim more. What he contends for is that the tumours become smaller, or, as Dr. Keith more exactly expresses it, diminish one-half or two-thirds, and that there is an amelioration of symptoms. The diminution they explain on the supposition that the muscular contraction excited reduces the blood-supply. That these results are probably delusive or only temporary in many cases we are justified in assuming by the light of some of Dr. Cutter's cases. But anyone who has had any experience of cases of fibroid tumour can furnish similar testimony as the result of other methods of treatment, either local or constitutional, or even without any treatment at all. At least that is my own experience.

That hæmorrhage can be arrested by the caustic action of the current in those cases where there is so-called granular degeneration of the endometrium is probably just as true as that it can be done by the process of curetting followed by the application of a saturated solution of iodine; but the proceeding has nothing to commend it either on the score of the time occupied by it, the facility of its application, or the results obtained.

But, as I have said, neither Apostoli himself nor any of his disciples claims that the tumour disappears under this treatment. In this respect, then, it is distinctly inferior to the removal of the appendages. For there are now numerous

instances of the total disappearance of the tumour as the consequence of this operation. My first case is a remarkable instance in point, and it is the more remarkable from the fact that I was unable to remove but one ovary and its tube. The other was so situated that it was impossible to get at it, jammed as it was between the enlarged uterus and the pelvis. In fact, when I mentioned the case to Mr. Lawson Tait soon after the operation he predicted a failure.

While, then, I hold that the case has not been proved in its favour, that the verdict cannot be claimed on the evidence so far adduced, I am yet open to conviction on the production of sufficient evidence. That it will take the place of hysterectomy—especially in such a case as that of *Molluscum fibrosum cysticum abdominale*, on which Mr. Bland Sutton recently reported for me before this Society, and in which a correct diagnosis was impossible—or the removal of the appendages in cases suitable for either of these operations I do not for a moment believe, and I have a very strong feeling that it will turn out to be a ‘nine days’ wonder.’ Much time and money will have been spent upon it, and the truth of the dictum, *Experientia docet*, will have been again demonstrated.

This subject will come before us again in February in discussing a specimen of fibroid tumour associated with intra-uterine mucous polypus exhibited by Dr. Heywood Smith at our last meeting, and by which the question was distinctly raised. But I felt that I could not allow this opportunity to pass without expressing the views I now hold.

So much for the work of the past year.

For the first time your President is able to speak of a library, not as a thing to be aimed at, but as an accomplished fact, for we now possess what may be called a respectable library of 700 volumes. The greater number of these volumes recall to our minds our first President, Dr. Alfred Meadows, and they will serve to keep green his memory under the distinctive appellation of the Meadows collection. We are also indebted for a large number to one of our foreign members, viz. Dr. Cordes, of Geneva. And now that a beginning

has been made, we may confidently look for a large and rapid increase. To the donors of these volumes your thanks have been tendered, and especially are we grateful to Mrs. Meadows for so faithfully carrying out the intentions of her late husband. While we are grateful to them we must not forget to acknowledge our indebtedness to our worthy and efficient Librarian, Dr. Bedford Fenwick, not only for the attention he has given to his charge, but for what I may call his hospitality in giving them house-room, and at the cost of some considerable inconvenience giving us the opportunity, at no cost to the Society, of consulting our treasures.

To our Secretaries my own thanks are due and hereby offered for their kind and willing assistance in matters pertaining to the work of our Society.

When you did me the honour of appointing me to this honourable position I felt that the honour was enhanced by the fact that my predecessor was my old friend Mr. Lawson Tait, with whom it has been my good fortune and satisfaction to be associated in the most friendly rivalry for so many years, and in at least one stiff fight in which I feel we have not come off second-best. That this is so I think I am justified in assuming, if only from the fact that no attempt has been made to reply to the indictment which I brought against the Listerian method in the inaugural address which I had the honour of delivering from this chair. That these happy relations may continue is my most ardent desire, and I heartily reciprocate the kind expression which he made use of in his retiring address when he said, 'I cannot wish better for myself, and I hope it is no ill wish for him, that our relations may so continue.'

I have now the pleasure of congratulating you on the choice of my successor. Dr. Edis has shown the utmost devotion to the welfare of the Society; he has laboured hard in its interests; he has conducted our financial affairs in a position that is by no means a sinecure, and one of honour only, with unflagging attention; and he is known far and wide as the author of an excellent work on the diseases of women

In conferring that honour upon him you are honouring yourselves.

It only remains for me now to renew the expression of my appreciation of the honour you conferred upon me a year ago, to return you, each and all, my most hearty thanks for the uniform courtesy and forbearance I have experienced at your hands, and to assure you that my best efforts will be devoted, in the future as in the past, to the promotion of the best interests of our Society.

Dr. ROBERT BARNES proposed, and it was seconded by Dr. Routh and Mr. Lawson Tait, that a vote of thanks should be given to the retiring President for the able and eloquent address which they had just heard. This proposition was then put to the meeting and carried by acclamation.

The PRESIDENT briefly responded.

Dr. HEYWOOD SMITH proposed, and Mr. Bland Sutton seconded, a vote of thanks to the Treasurer, Secretaries, and retiring officers. This was put to the meeting and carried unanimously.

The PRESIDENT announced that the following gentlemen had been elected as officers and members of Council for the ensuing year :—

Honorary President: Robert Barnes, M.D., F.R.C.P. (London); President: Arthur Wellesley Edis, M.D., F.R.C.P. (London); Vice-Presidents: Fancourt Barnes, M.D. (London), John Chalmers, M.D. (London), J. G. Sinclair Coghill, M.D. (Ventnor), J. Halliday Croom, M.D. (Edinburgh), William Gardner, M.D. (Montreal), W. Chapman Grigg, M.D. (London), William T. Lusk, M.D. (New York), Arthur V. Macan, M.D. (Dublin), Paul F. Mundé, M.D. (New York), F. L. Neugebauer, M.D. (Warsaw), Thomas Savage, M.D. (Birmingham), William Walter, M.D. (Manchester); Treasurer: G. Granville Bantock, M.D., F.R.C.S. Ed. (London); Librarian: Bedford Fenwick, M.D. (London); Council: William Alexander, M.D. (Liverpool), F. A. Newton Bateman, M.R.C.S. (London), Thos. A. Cambridge, M.R.C.S. (London), Thos. M. Dolan, M.D. (Halifax), R. W. Edginton, M.D. (Birmingham), C. Egerton

Fitzgerald, M.D. (Folkestone), A. Phillips Hills, M.R.C.S. (London), Francis Imlach, M.D. (Liverpool), R. Milne Murray, M.B. (Edinburgh), Thos. Morton, M.D. (London), F. Albert Purcell, M.D. (London), J. A. Rawlings, M.R.C.P. (Swansea), W. Loudon Reid, M.D. (Glasgow), C. H. F. Routh, M.D. (London), John Shaw, M.D. (London), J. Herbert Simpson, M.D. (Rugby), W. Japp Sinclair, M.D. (Manchester), Bryce Smith, M.B. (Belfast), J. Greig Smith, M.D. (Bristol), W. J. Smyly, M.D. (Dublin), W. Dunnett Spanton, F.R.C.S. Ed. (Hanley), Lawson Tait, F.R.C.S. (Birmingham); Honorary Secretaries: J. A. Mansell-Moullin, M.B. (London), Bedford Fenwick, M.D. (London).

The Society then adjourned.

REVIEWS.

The Pathology of Intra-uterine Death. By William O. Priestley, M.D., F.R.C.P., LL.D., Consulting Physician to King's College Hospital. London: J. and A. Churchill.

The lectures which together constitute this work are the Lumleian Lectures delivered before the Royal College of Physicians of London in March 1887, and everyone interested in the subject will be greatly pleased at their being now published in one volume. The work shows a vast amount of labour and experience, and will be found of great value to all students of obstetrics, more especially as what is already known of the subject is so scattered and fragmentary as to be beyond the reach of many. In Lecture I. we find some general considerations and the more common and better known causes of abortion treated of, such as local affections of the generative organs in the female, the fevers, poisons circulating in the maternal blood, &c. Speaking of epidemics of abortion, which some authors have recorded, Dr. Priestley says that 'these when inquired into have been found to be associated with famines, sieges, and the like.' The effects of high temperature upon the intra-uterine death of the fœtus, and its rapid expulsion in many cases, is probably to be explained by the circulation of dark venous blood in the system, which, containing as it does an excess of carbonic acid, stimulates the nervous centres and contractile tissues. If this blood accumulates in the uterine sinuses 'not only does distension act in promoting rhythmical contractions, but the carbonic acid of the blood is still more potent in bringing the uterine muscles into play.

Lecture II. deals with the diseases of the foetal appendages, and will be found full and complete, so far as our present knowledge is concerned. Apoplexy of the ovum is traced from its beginning to the final extravasations of blood between the chorion and decidua, and the various causes of this disease discussed. Three forms of decidual inflammation are dwelt upon (1) chronic diffuse endometritis, (2) polypoid endometritis, (3) catarrhal endometritis. The second variety is in all probability an advanced stage of the first-mentioned variety—chronic diffuse endometritis. Cystic chorion, or hydatid degeneration of the chorion, deservedly occupies considerable space in this lecture, the value of which is enhanced by the author's discussion on Virchow's and Ercolani's views.

In Lecture III. we find abundant and valuable information on the diseases and anomalies of the placenta. To those who believe that all the morbid changes found in the placenta are the result of a placentitis we commend the following paragraph: 'The placenta is, in truth, as liable to be affected by a variety of diseases as the liver or the lung, and some of its diseases bear, not only a striking resemblance to diseases occurring in these organs, but have affinities with them, and may depend on the same causes.' The subject of apoplexy of the placenta is dwelt upon at length and the views held by Robin, Bustamente, and others, are shortly stated and carefully examined and compared with the author's experience. Placental phthisis, and the various changes which the organ undergoes when affected by this disease, forms an important part of this lecture and adds greatly to its value. Other diseases of the placenta, as fatty degeneration, myxoma fibrosum, œdema, calcareous degeneration, cystic and syphilitic disease of the placenta are in their turn ably described. The volume is neatly bound and of convenient size. It abounds in carefully drawn diagrams and contains several coloured plates of microscopical sections. The work is full of valuable information and should be in the possession of every medical man, especially those making obstetrics their special study.

Gynæcological Operations. By Alban Doran, F.R.C.S.,
Surgeon to the Samaritan Free Hospital for Women.

Any work coming from the pen of Mr. Doran is sufficient guarantee that the material contained in it will be sound and well worth careful study, and the present volume will be found no exception.

His large and extended experience at the Samaritan Free Hospital has been ably taken advantage of in the description of most gynæcological operations; in fact, the only fault we can find with the volume is that it represents too fully and too frequently operations as performed by surgeons at the Samaritan Hospital. In abdominal surgery no one can be surprised at this, and in our opinion it gives the work a decided advantage over many other works; but it seems to us that in some of the minor operations the description savours too much of the Samaritan Hospital.

In Chapter V. the author gives a description of 'Electrical Apparatus used in Gynæcological Surgery.' We must confess ourselves as rather disappointed that the author has not touched upon the electrical treatment of fibroid tumours of the uterus, but he is careful to explain in his introductory remarks his reasons for this apparent omission.

The volume abounds in beautifully drawn diagrams, and is most carefully got up. We can heartily recommend it to everyone interested in gynæcological practice as a thoroughly reliable guide to all gynæcological operations, and one which contains many useful hints omitted by other authors on the same subjects.

Situation et Prolapsus des Ovaires. By Paul Vallin.

In order that the displacement of the ovaries may be more advantageously studied, the author devotes considerable time to specifying their exact anatomical situation. His description of the anatomy of the organs is based upon observations

made on the bodies of five corpses : two virgins aged 16 and 17 years respectively, one young girl of 19 years, one married woman of 22 who had had one child, and one multipara 33 years of age.

The method followed to procure the proper position and relations of the ovaries was as follows : the abdominal wall was divided, the peritoneal cavity opened, all intestinal coils were ligatured and removed, the body was then raised to the upright position, and the position of the ovaries and uterus in the pelvis carefully noted. This process is unfortunately open to many objections, and errors must creep in which might have been avoided had the bodies been frozen and sections then made. The position of the ovary is maintained by the connective tissue, muscular tissue, vessels and nerves entering at the hilum ; by the ligament of the ovary and by the infundibulo-pelvic ligament. The ovaries while thus held in position are capable of certain physiological movements (1) those dependent on movements of the uterus, (2) those due to pregnancy.

For all practical purposes only two varieties of prolapse of the ovaries need be described. In the first variety the organ sinks down into the pouch of peritoneum lying immediately behind and below the ovary. This variety, which the author terms *retro-lateral*, is the first step, and leads to the second variety, the *retro-uterine*, in which the prolapsus takes place into the pouch of Douglas immediately behind the uterus. The frequency, causes, and treatment of this affection are all studied, and thirty-two cases bearing on the subject are brought forward.

From extended observations he concludes : (1) The ovary in the normal state occupies a vertical position in the pelvis. (2) It is closely applied to the wall of the pelvis, nearly opposite the bifurcation of the common iliac vessels into its branches. (3) It is completely covered by the Fallopian tube and its fimbriated extremity. (4) In the normal state it is very movable. (5) Prolapsus of the ovary, though hardly described, is nevertheless very frequent. (6) It is due to a

relaxation of the supports of the ovary, the relaxation being the consequence of imperfect involution after pregnancy. (7) No special lesions are characteristic of prolapsus of the ovary. (8) The affection is diagnosed by a variety of symptoms, none of which are characteristic, and by certain well-marked physical signs. (9) Treatment is generally difficult and unsatisfactory. (10) Pessaries are frequently of great service in procuring relief, but removal of the prolapsed organs is sometimes indicated, but only as an exceptional measure. (11) When castration is performed it should be unilateral if the disease is unilateral, and removal per vaginam is preferable to abdominal section. Oöphorraphy is still *sub judice*.

Abortion.

By LESLIE PHILLIPS, M.D. (Cornish Brothers, Birmingham).

This small brochure, dealing with the pathology and treatment of abortion, will, we believe, be found of use to the general practitioner, for whose use it is specially intended. Into the full pathological details of abortion it does not attempt to enter, but most, if not all, pathological conditions of importance are touched upon. The causes of abortion are divided into those connected (1) with the mother; (2) with the father; (3) with the fœtus; and are severally touched upon. Syphilis, as an exciting cause, might be gone into at greater length, together with its appropriate treatment. Part II. is taken up with the treatment, which deals with the treatment of threatened and inevitable abortion. The line of treatment advised seems to us sound and good, especially when more decided action than is frequently the case is strongly advocated. This small volume, while thoroughly unpretentious, will be found extremely useful, and can be recommended to every busy practitioner for perusal.

Du Développement du Fœtus chez les Femmes à Bassin Vicié. Recherches Cliniques au point de vue de l'Accouchement prématuré artificiel. Par Dr. FELICE LA TORRE. Paris, 1887.

This work is a laborious clinical investigation of the influence of a deformed pelvis upon the course of gestation, and the indications for inducing artificial delivery. The author has searched the records of the 'Clinique d'Accouchements' of the Maternité and other Paris hospitals. He gives tables of—

1. 419 cases of women with deformed pelvis.
2. Statistical tables of 2,260 deliveries in 1,002 normal pelves.
3. Statistical tables of 3,462 deliveries in 1,325 narrow pelves.

He discusses the influence of pelvic contraction as a cause of retroversion of the uterus, and hence of abortion, citing and criticising the opinions of authors upon that point and testing the matter by clinical experience. He arrives at the conclusion, enunciated by Tyler Smith, that retroversion of the gravid womb is most frequently the continuation of a condition existing before pregnancy.

He seeks by analysis of these materials to answer the questions, Do narrow pelves play an important part in the etiology of premature delivery? Do they hinder the development of the fœtus?

The conclusions he arrives at are : 1. That pelvic stenoses exercise no influence upon the course of gestation. 2. Premature delivery is, in general, more frequent in well-made subjects than in those affected with pelvic malformations. 3. The product of conception attains equal development in height and size in deformed and in normal pelves.

It follows that since there is no proportion between the containing body and the contained in the immense majority

of cases a foetus at term cannot pass spontaneously through a pelvic canal measuring less than 9 centim. (2·75 in.) Hence to prevent women having pelvic contraction between $5\frac{1}{2}$ and 9 centim. (2·20 in. and 2·75 in.) from encountering the dangers attending labour at term, *we must intervene prematurely*. Before term the best method of intervention is the premature artificial delivery.

At the present day, with the aid of antisepsis, the couveuse, and gavage, this operation presents no drawback. All the mothers are saved, and 88 per cent. of the infants leave the hospital alive. The obstetrical viability may be lowered to six months, or 184 days. The Cæsarian operation, even the modification of Saenger, and still less the operation of Porro, do not yield successes equal to those ensured by premature labour.

Whenever possible, then, labour should be provoked before term; we should not wait for term in order to perform Cæsarian section. The first operation is easy, the second is very difficult, not within the capacity of all, and even sometimes embarrassing to skilled operators.

In those cases where the woman comes before us at term craniotomy would, strictly speaking, be preferable. The mortality of mothers is less than that under the Cæsarian section.

In cases of pelvic stenosis below $5\frac{1}{2}$ centim. (2·2 in.), abortion being practicable, this would be better than letting the gestation go on to term, with a view to Cæsarian section or cephalotripsy. The author concludes that premature artificial delivery has lost nothing of its importance, and that actually this importance is more than ever beyond dispute. These arguments are nearly identical with those mentioned by Robert Barnes before the Obstetrical Section of the British Medical Association at Brighton in 1886. Dr. La Torre bases his conclusions upon a mass of clinical experience, which it is impossible to rival in this country, where pelvic distortions are comparatively rare. This fact points to a moral which Continental physicians and statesmen would do

well to take to heart. They should seek to improve the physical condition of their populations as we have done. In proportion to their success in this direction distortions will diminish, and these questions between premature labour, craniotomy, and Cæsarian section will lose in practical importance.

*SUMMARY OF GYNÆCOLOGY, INCLUDING
OBSTETRICS.*

The Sectional Anatomy of Advanced Extra-uterine Gestation.

By BERRY HART.

THE author has had the opportunity of examining frozen sections of two cases, the one a $4\frac{1}{2}$ month extra-uterine pregnancy *in situ* in the bony pelvis ; the second an entire cadaver with advanced abdominal gestation. Examination of these sections confirmed many points already noticed in extra-uterine gestation, and brought out very clearly the fact that an extra-peritoneal extra-uterine gestation is possible. The author classifies the following varieties : (1) tubal ; (2) tubo-ovarian ; (3) subperitoneo-pelvic or intra-ligamentous ; (4) subperitoneo-abdominal. These two last are demonstrated in the specimens which form the basis of his observations. The author concludes : (1) Fallopian tube pregnancy may develop into the broad ligament (intra-ligamentous, Werth) and continue this development beneath the peritoneum of the pelvic floor (subperitoneo-pelvic of Dezeimeris) ; (2) an advanced gestation may be derived from a Fallopian tube pregnancy which develops as given in I., and further lifts up the peritoneum itself until we get (3) an abdominal case entirely extra-peritoneal. For this form the author suggests the term subperitoneo-abdominal ; (4) the placental changes in the subperitoneo-abdominal form are destructive to placental tissue and function, and inimical therefore to vigorous foetal life ; (5) in treatment one great principle is to interfere where safest for the mother, without regard to foetal life ; (6) the placenta should be left *in situ* after the operation, as separation

causes uncontrollable hæmorrhage. The extra-peritoneal position of the placenta and the chance of its organising is another argument for not interfering with it.

Report upon some Cases of Hæmatocele.

By JOHN W. TALENT, M.B., C.M.

The cases, of which the following are short notes, came under the care of Professor Simpson in the Royal Infirmary. During nine months eight cases of hæmatocele were admitted out of a total of 162 cases, or about 5 per cent.

The line of treatment adopted was expectant, operative interference being resorted to only when the expectant method had failed. Four cases recovered under the usual treatment, while in the remaining four there was active interference by operation. These are now reported.

Case I.: Patient aged 29 ; complains of bearing-down pain in front passage and below the stomach, commencing six days prior to admission. Last confinement $2\frac{1}{2}$ years ago, since which time she has had pain on micturition. Menstruation regular and rather profuse. On January 14, whilst at work, experienced a sharp pain and noticed she was flooding. Examination showed there was tenderness over abdomen and in vagina ; the uterus was pushed forwards, the posterior cul-de-sac having an indistinct feeling of fulness. Rest and hot fomentations were ordered. The indistinct fulness in Douglas's pouch soon changed, and a semi-rounded firm mass was felt. On March 3 she felt something burst, and dark grumous fluid came away with the douche. On March 6 an opening was made in the posterior fornix with a thermo-cautery, and fluid blood and pus with blood-clot escaped. A solution of corrosive sublimate was injected, and a drainage-tube passed through the opening. The patient's recovery, though prolonged, was satisfactory.

Case II.: Patient, aged 23, unmarried, complains of severe pain in right side and swelling over the stomach. Seven years ago patient was delivered of a seven-months child. Present

attack began during a menstrual period, with sudden pain in pelvis. She continued to work for two days, but noticed the abdomen was swelling. On examination the vagina was partially occupied by a large swelling pushing in from the posterior fornix. This tumour passed into the hollow of the sacrum. The cervix and uterus were pushed up and to the front. Rest and ice-bags over abdomen were ordered. The swelling slowly but gradually lessened. On May 4, 1887, four months after admission, pain was severe, vomiting became incessant, her bowels were constipated, and micturition painful. Laparotomy was therefore performed. A large mass was found in the pelvis, chiefly on the left side and behind the uterus. The uterus and ovaries were bound down by this mass. An aspirator was passed into the mass, and a small quantity of blood escaped. The abdomen was carefully cleaned and the wound sutured. The patient made an excellent recovery.

Case III.: In this case the hæmatocele was due to an extra-uterine gestation, which was operated upon by Dr. Hart, by whom the case will be further reported.

Case IV.: Patient, aged 33, had for a long time suffered from pain in back and side. Menstrual flow increased and painful. Over the abdomen there was tenderness; by the vagina was felt a rounded tender mass in right fornix distinct from the uterus. It was diagnosed as tubal. Laparotomy was performed. To the right of the uterus was a bilobed tumour, each lobe about the size of a goose's egg. The upper one consisted of a hæmato-salpinx; all clots were removed, also the cyst-wall enclosing the tumour. The patient made an excellent recovery.

THE BIRMINGHAM MEDICAL REVIEW.

The Pathology and Treatment of Abortion.

By J. A. LYCETT, M.D.

In threatened abortion dietetic and hygienic measures must be carefully attended to; stimulants are rarely, if ever, required. Rest is essential, both of mind and body. If hæmor-

rhage is a pressing symptom, the liquid extract of *Vincor major* or *Viburnum prunifolium* in drachm doses every one to four hours will generally arrest it. Gallic acid is useful when hæmorrhage is severe. In nervous, excitable females bromide of potassium is indicated unless pain be severe, when opium is necessary. If, however, the cervix is dilating the author objects to the use of opium. The vaginal tampon must never be used, and it is advisable to make no more vaginal examinations than are absolutely called for. When abortion is inevitable the majority of cases end satisfactorily if the usual precautions attending an ordinary labour are observed. In neglected cases death may occur from hæmorrhage or septic mischief; frequently there is a diseased condition of the uterus, occasioned by the retention in utero of some of the foetal remains. The four chief indications in inevitable abortion are (1) to control the hæmorrhage; (2) to relieve pain; (3) to dilate the cervix; (4) to empty the uterus. To control hæmorrhage plugging the cervix will be found sufficient, while it also helps to dilate the cervix. If the cervix is open, and the ovum protruding, small doses of ergot may be administered, otherwise ergot is contra-indicated. To relieve pain and the nervous condition so frequent in aborting women, bromide of potassium, Indian hemp, chloral, or opium may be given. If the ovum is not detached, or only a portion expelled, means must be taken to empty the uterine cavity. For this purpose the best instrument is the finger, though ovum-forceps and other instruments have been devised for this purpose.

The Use of *Veratrum Viride* in Puerperal Eclampsia. The use of this drug has been greatly extolled by our American cousins in the treatment of puerperal convulsions. It may be administered by the rectum, mouth, or subcutaneously; in whichever way it is given the results have been highly satisfactory. Upon this point American physicians seem to be unanimous. In this country, however, equally satisfactory results have not been obtained, and, quoting the words of the *Birmingham Medical Review*, 'it seems to us that 'American

women appear to respond to the drug treatment much more readily and certainly than Englishwomen.'

Purulent Ophthalmia of Infants, and its Treatment.

By D. C. LLOYD OWEN, F.R.C.S.I.

In the early stages of this disease the author recommends antiseptic treatment from the outset ; washing the conjunctiva every hour with a weak carbolic lotion, 2-3 grains to the ounce ; or a boracic lotion of 5 grs. to the ounce ; or the following : boracic acid, 40 grs. ; liq. hydrarg. perchlor. 1 oz. to water 8 ozs. An ointment of iodoform 5 grs. to vaseline 1 dr. must in any case be freely applied to the eyelids. If the disease has assumed a severe form, and is more advanced, antiseptic lotions, with nitrate of silver solution 15 grs. to water 1 oz. is advised. If there be any loss of transparency of the cornea a solution of sulphate of atropia, 2 grs. to water 1 oz., must be used in addition to the nitrate of silver solution. Prophylactic treatment, which will prevent this disease, and so save any need for the methods of treatment above described, is entirely omitted.

PROVINCIAL MEDICAL JOURNAL.

Note on the Use of Galvanism in the Treatment of Uterine Disease. By GEORGE ELDER, M.D.

This short article is chiefly a *résumé* of Apostoli's method of treatment, with the results he has obtained. During five years Apostoli has been working at the subject ; he has made 5,201 applications of the current for a variety of gynæcological diseases. He has treated 278 cases of fibromata and hypertrophy of the uterus. As yet too short a time has elapsed for those who are working at the subject to give an authoritative statement as to its value, but in Dr. Elder's experience it has been found of service in arresting hæmorrhage, relieving pain, and in improving the general health. So far he has only seen three cases of uterine fibroids which

have undergone any diminution in size. Cutler, of New York, uses a Stoehrer's battery, capable of giving a current intensity of 27 ampères. He anæsthetises the patient and plunges both electrodes, which have their points and edges sharpened, into the growth. Each séance lasts about 15 minutes; the patient is then put to bed for several days. This method of treatment Dr. Elder considers more risky than hysterectomy or oöphorectomy, and we certainly agree with him.

THE PITTSBURGH MEDICAL REVIEW.

Treatment of Cancer of the Uterus. By Prof. SCHANTA.

Cancer of the uterus can be completely cured by vaginal hysterectomy provided the disease be still in the early stage, and the incisions for the removal of the uterus be made in healthy tissues. The extirpation must be complete, as it is impossible to define the limits of healthy and diseased tissues. In the earliest stage of the disease there are certain peculiarities which are worthy of consideration. There will be found some erosion, on the surface of which small nodules, dark red or yellowish red, project, and which bleed very easily. At first these nodules appear innocent, but if they are removed and examined microscopically they present all the characteristics of cancer. According to Professor Schanta total extirpation of the uterus gives the best results, 70 per cent. of the cases ending in 'complete restoration to health.'

Treatment of Gonorrhæal Vaginitis and Endometritis.

By Dr. FRITSCH.

The author strongly recommends the use of chloride of zinc solution in the treatment of these conditions. He uses equal parts of chloride of zinc and water, and of this adds 20 grains to a litre of water at a temperature of 30° R. This solution is used as a vaginal douche twice a day.

In those cases in which the uterus or cervix is involved a stronger solution of chloride of zinc should be applied to the

uterus, and should be followed by an iodoform tampon. By this means, though an absolute cure is not guaranteed, speedy relief is certain.

THE AMERICAN LANCET.

The Therapeutic Value of some Medicines in the Treatment of Hæmorrhagic Conditions of the Uterus. By C. D. PALMER, M.D.

The author mentions most of the drugs supposed to exert a beneficial action on uterine hæmorrhages. Ergot is prescribed with great success, and its action well understood. The softer and more flabby the uterus, the better will ergot act. Digitalis as an infusion is of great service in uterine hæmorrhages resulting from cardiac disease, as mitral regurgitation. A weak heart, with slow or rapid action, is greatly improved by this drug.

Cannabis indica is uncertain, and its mode of action imperfectly understood. It appears to stimulate the cerebro-spinal centres, causing uterine contractions. Bromide of potassium is of special value in hæmorrhages due to ovarian irritation and congestion. For menorrhagia of pelvic peritonitis it is the best remedy to employ. Arsenic acts directly on the uterus, though it is not as prompt in its action as ergot or bromide of potassium. In chronic endometritis, with menorrhagia, and in the hæmorrhages met with in young girls, small doses of Fowler's solution is invaluable. Gallic acid is useful in hæmorrhages due to uterine atony. Iron is beneficial when flooding is due to a hydræmic condition of the blood. Viburnum prunifolium is of value in systemic cases, and dysmenorrhœa associated with menorrhagia. Hydrastis canadensis is mentioned, also Gossypium herbaceum, but neither of them can equal Hamamelis virginica, which the author considers superior to ergot in some cases. Hamamelis is slightly astringent, and a decided hæmostatic. The virtues of the drug do not reside in the tannic and gallic acids which it contains.

THE OBSTETRIC GAZETTE.

A Case of Ovarian Cystoma with Twisted Pedicle.

By Dr. PARKES.

The patient was 45 years of age, and suspected no disease until she was suddenly seized with distension in the abdomen, pain, and vomiting. Pulse 120 per minute; temperature 103° F. On opening the abdomen an ovarian cyst was found adherent to the parietal walls, the adhesions being numerous, thick, and vascular. The pedicle was twisted several times, and at one point a line of demarcation was to be seen, at which separation of the cyst was taking place. He considered that the vascular supply of the cyst was derived from the adhesions, and not from the pedicle. Unfortunately Dr. Parkes can throw no light on the probable cause of twisting of the pedicle.

Apostoli's Method of Electrolysis. By Dr. MARTIN.

Dr. Martin ascribes Apostoli's success in the treatment of uterine fibroids to—

1. The use of strong currents.
2. Adoption of electrodes that make the use of a strong current possible, without harm to innocent tissues and without pain to the patient.
3. The recognition of the peculiar effects of the two poles, and the application of them according to requirements.
4. Accurate measurement of current.
5. Rational discrimination in selection of cases.

Strong currents give more definite results than weak, and each séance is shorter. Proper means of measurement should always be at hand, otherwise strong currents must not be used. The active pole will sometimes be negative, sometimes positive, according to the requirements of each case. Uterine hæmorrhages can invariably be checked, and neuralgic pains relieved, by the use of the positive pole. The method if properly carried out is entirely free from danger.

THE AMERICAN JOURNAL OF OBSTETRICS.

The Differential Diagnosis between Fungous Endometritis and Tumours of the Mucosa of the Uterus. By Dr. HEITZMANN, of New York.

It is a matter of frequent observation that it is extremely difficult to diagnose accurately some of the conditions resembling fungous endometritis. In the above paper the differential diagnosis from a clinical point of view is not discussed, but from repeated microscopical examinations made upon diseased conditions of the endometrium the author concludes : (1) Endometritis fungosa is characterised under the microscope by the presence of a varying number of tubular utricular glands, the epithelia of which are columnar ciliated, but always unbroken. (2) In endometritis fungosa the connective tissue between the tubular glands may be crowded with lymph-corpuscles, exhibiting a hyperplasia of the adenoid or lymph tissue of the uterine mucosa, or the interstitial tissue between the tubules is found to be myxomatous, or even fibrous in nature. These differences probably depend on the age of the patient. (3) Polypous tumours consist of myxomatous tissue, and are properly termed myxoma ; or if bundles of a delicate fibrous connective tissue enter the structure, fibro-myxoma. Glandular formations in such tumours are, as a rule, scant or absent : they not infrequently contain cysts. (4) Sarcoma, especially in its earlier stages, occurs, under the clinical symptoms of fungous endometritis, mostly diffused ; and the correct diagnosis can be made with the microscope only when the epithelia of the tubular glands, either the original or newly formed, are destroyed by the sarcomatous growth. (5) In sarcoma the epithelia of the utricular glands are transformed into sarcoma corpuscles, either directly by a process of division or through the intervening stage of a coalescence into granular protoplasmic masses. (6) Papilloma of the uterine mucosa does occur in exactly the same way as on the mucosa of the urinary bladder.

This form of tumour is extremely rare. (7) Adenoma is a rare form of tumour, sometimes appearing under the clinical features of fungous endometritis. It consists of a new growth of the utricular glands in a plexiform arrangement, and with narrow calibres. The connective tissue between the epithelial formations is fibrous and scanty. (8) Cancer appears in the uterine mucosa in the form of epithelioma and medullary cancer. The utricular glands are not directly formed into cancer nests, but the epithelia of the utricular glands first break up into medullary corpuscles or into larger masses of protoplasm, from which the cancer epithelia arise.

Laparotomy as a Cure for Tuberculosis of the Peritoneum.

By Dr. VAN DE WARKER.

Dr. Van der Warker reports a case of tubercular peritonitis in which he performed laparotomy, not with the object of curing the tubercular disease, but to remove what he thought was an ovarian cyst. The patient was a married woman aged 28 years, married four years, the mother of one child a year old. She complained of swelling of the abdomen, which she supposed to be a tumour. The diagnosis made was ascites, but the cause of the peritoneal effusion was uncertain. Later on the patient returned, and it was then observed that the physical signs which were present before had changed. The abdomen was now prominent and rounded; by palpation in the right iliac region an irregular hardened mass could be felt; fluctuation was limited by the line of dulness at the epigastrium and in the flanks; there was dulness on percussion in the loins; the uterus was not connected with the abdominal mass. She was tapped, and 'about a quart of straw-coloured fluid' was removed. The fluid thus withdrawn coagulated on boiling, but not on standing. The fluid, however, collected again, and the diagnosis arrived at in June 1886 was that there was an ovarian cyst with ascites, and an operation was accordingly decided on. The abdomen was opened in the middle line, and all free fluid evacuated. On passing the hand into the peritoneal cavity it was found that

the intestines and omentum were matted together, and the peritoneum everywhere studded with tubercles. The peritoneal cavity was washed out with sublimate solution, and the wound closed. The patient recovered rapidly, with no untoward symptoms. In June 1887 she was well, had gained flesh, and was looking strong and robust. There had been no re-accumulation of fluid in the abdomen. The author mentions several similar cases by German physicians, and expresses the hope that in selected cases the operation will prove an obstruction to the further progress of the disease. He believes the disease when once started in the peritoneum is intensified by the ascitic accumulation acting as an irritant and 'a medium for the distribution of the tubercular germs.' Laparotomy gives rest to the irritated peritoneum, and allows of a thickening and induration of the surfaces which in time ends in cure. The class of cases which is most promising for operation is that in which the invasion of the disease is slow, without pyrexia, with ascites as an early and leading symptom, and in which there is no evidence of tubercular deposit in any other part of the body. Such a case he believes is exemplified in the one published by him.

Puerperal Fever, and its Treatment. By Dr. HOAG.

Puerperal infection can only take place from without. When infectious germs from without are excluded the uterine contents will remain as free from decomposition post partum as the macerated foetus does ante partum. There is a three-fold indirect relation between puerperal fever and the retention of the secundines in utero : '(1) improper management during the post-partum period, resulting in hæmorrhages and consequent weakness ; (2) imperfect contraction of the uterus tends to prepare the tissues for inflammatory processes ; (3) incomplete separation of the secundines leaves within the uterus materials which may become putrid, and thus lead to infection,' *only if the infecting germs are introduced from without.*

Remarks on the Technique of Vaginal Hysterectomy.

By A. MARTIN, M.D.

It is of little consequence on which side of the uterus detachment from the vagina is begun. The author prefers beginning in the posterior fornix, as the peritoneum is easier to reach. One essential point in this operation is that there must be considerable mobility of the uterus. The detachment of the lateral fornix must reach right up to the side of the body of the uterus. Always complete the operation on one side before proceeding with the other. It is best to detach the bladder after both sides and the back of the uterus have been made free, and great care must be taken in this step of the operation, which is best performed with the fingers. Occasionally the author has punctured the bladder with the suturing needle by mistake, but no harm has resulted. In two cases he has opened the bladder, forming a vesico-peritoneal fistula. In one case a drainage-tube was inserted: the patient made an excellent recovery, though there still exists a small opening which will in all probability close by cicatricial contraction before long. In the second case the edges of the bladder and peritoneum were sutured to the vaginal fornix: the patient made an excellent recovery. The author has never injured the ureters, which, according to him, are close under the pubic arch and far from the cervix. To remove the uterus the fundus may, if large, be everted through the posterior opening; in other cases there is no need to proceed to evert. The ovaries and Fallopian tubes should be removed if possible, and ligatures inserted into the lateral part of the broad ligament. Any bleeding points are tied either separately or in one large ligature. Intestines never or only seldom prolapse. It is better not to close the vaginal opening, through which a drainage-tube is passed, the outer end of the tube being covered with salicylated cotton. This tube is removed about the eighth day. The bowels are moved on the fourth day, and the patient allowed to get up between the tenth and twelfth days.

Primary Laparotomy in Cases of Extra-uterine Gestation.

By ROBERT T. HARRIS, M.A., M.D.

Primary laparotomy, which has for its object the saving of both mother and a viable fœtus, is unfortunately an operation which has hitherto been attended with disastrous results. The statistics of the operation 'show that there is only one chance in nine of preserving the life of the former (i.e. mother), and one out of two of saving the latter (i.e. fœtus).' The dangers to be apprehended in the primary operation are, according to the author, five: (1) The condition of the placenta, which is still functionally active up to the moment of separating the fœtus from it; (2) the abnormal characteristics of the placenta itself; (3) the special and ectopic position of the placenta in each individual case; (4) the vascularity of the cyst-wall; (5) the non-contractile basis upon which the placenta is located. Death of the fœtus leads to a carnification of the placenta and occlusion of its vessels, so that when exfoliation takes place no large vessels are opened. In primary laparotomy for extra-uterine gestation the very converse holds, for exfoliation of the placenta, which has been active until the moment of separating the fœtus from it, leads to the opening of large sinuses and violent hæmorrhage. Again the form and character of the placenta in extra-uterine gestation are never normal except in so-called 'utero-tubo-abdominal pregnancy.' It varies in size and form; it may be small and thin, or large and broad. Sometimes no true placental tissue is found, or it may be divided into several portions. In each individual case the position of the placenta will vary. It may be attached to the parietal peritoneum, to the intestines, or to a sac-wall; its vascular supply in some cases is comparatively small, or, on the other hand, extremely abundant, and hæmorrhage, if it occurs, may be uncontrollable. In any case, whether the placenta is attached to the abdominal walls, the stomach, intestines, or elsewhere, the parts into which it is inserted are non-contractile, or only very slightly so. If it is

decided to perform primary laparotomy the operation must be delayed until the fœtus shall have attained sufficient strength to live independent of all maternal help. A fœtus growing outside the uterus will be defective in growth, and not attain viability as soon as an intra-uterine fœtus. Out of 27 primary operations death has been due to hæmorrhage in 12 cases, peritonitis in 6, septicæmia in 3, heart-clot in 1, shock in 1, collapse in 1. Thus out of 27 primary operations 3 mothers recovered, while 9 children 'lived'; 3 lived from 3 to 18 months, and the remainder died within 50 hours. These results are not encouraging to the expectant operator, and prognosis must naturally be unfavourable.

The Study of Diffuse Hyperplastic Inflammation of the Decidual Endometrium. By B. C. HIRST, M.D.

The author merely wished to bring forward a few points with regard to this disease, which he believes has not been fully described. The condition consists in 'a great hypertrophy of the connective tissue, blood-vessels, and remnants of mucous membrane occupying the placental site, forming a mass which in extent and shape resembles a second placenta.' The condition gives rise to hæmorrhage, and sometimes septicæmia, owing to its becoming gradually detached from the uterine wall. He instanced an example in a young woman who had been delivered after an easy labour. Shortly after parturition hæmorrhages at frequent intervals began to occur, with bearing-down pains. A fleshy mass was felt in the uterine cavity and removed, which was, however, not examined, owing to its being badly prepared for microscopical examination. Shortly after he attended the post mortem of a case in which the history and symptoms were similar to those already described. Occupying the placental site was a dark-coloured substance, elevated above the surface of the uterine cavity. It was rough and jagged, and only loosely attached to the uterine wall. Microscopical examination showed that the substance was composed largely of fibrous

tissue, with large blood-sinuses filled with clotted blood. Towards the inner surface were seen decidual cells and young connective-tissue cells. The treatment of these cases is to thoroughly empty the uterus of its contents, the best instrument to be used being the curette.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Galvanism in Pruritus Vulvæ. By Dr. VON CAMPE.

The patient, aged 53 years, had suffered from intense irritation of the vulva, perinæum, and groin for two and a half years. Various methods of treatment had been tried, but without avail. One surgeon proceeded so far as to excise the most irritable portions of the skin. Salicylic and cocaine ointments only relieved for a short time. Finally Von Campe applied electricity to the part, using the constant current of small strength, the anode being applied to the vulva, the cathode to the other portions of the affected skin. Two days after the first application all irritation had ceased. In order to perfect the cure the application of electricity was continued some time longer.

Distocia from Short or Coiled Funis, and its Treatment.

By Dr. KING.

Dr. A. F. A. King has before now urged upon the profession the importance of this complication in labour, and advocated the postural position for its most effectual treatment. In his present paper he again draws attention to the subject, and quotes several cases in which labour was delayed for considerable periods owing to the funis being coiled round the body or neck of the foetus. In one case the head was so far advanced as to be half-born, but its further progress was delayed by the cord, which was twisted four times round the body of the infant, while only 2 inches represented the free portion of the cord. In these cases forceps are frequently applied, sometimes when the child is dead, sometimes in time

to save the life of the foetus, but only to tear the mother's perinæum and soft parts. As a rule, forceps are applied successfully, but the method of treatment is wrong. If the head is delayed in its further downward progress, the position of the patient should be changed, so that instead of the usual one she must assume a sitting or squatting position. This method of treatment, the author complains, is not sufficiently recognised or taught by most modern authorities. Smellie records a case of this description and his treatment by placing the patient in a posture between lying and sitting, which was successful. Denman recognises a funis coiled round the infant's body as a cause of dystocia, and recommends 'change of position.' In many of these cases the patient has been possessed of 'an instinctive desire' to sit up or assume a kneeling or squatting posture instead of that usually adopted, and the author again refers to this important symptom in these cases.

The Chief Source of Danger in the Use of the Uterine Sound.

By Dr. FRENCH.

The author quotes numerous text-books to show that the prevailing opinion with regard to the uterine sound is that the instrument is a source of danger chiefly from its traumatic effects. This opinion the author contests. He examples the tolerance of the uterus in many surgical operations, as curetting, divulsion, &c., and believes that so long as all septic matter is absent from these operations no harm will result. The same he holds to be true in the use of the sound, and he maintains that 'the danger from traumatic lesion is completely overshadowed by that from septic infection.' A septic pyo-salpinx, whether gonorrhœal or non-gonorrhœal, may be communicated as readily by an infected sound as by extension from the vagina. In every case before the sound is used the instrument should be dipped in a 5 per cent. solution of carbolic acid.

The Relation between Erysipelas and Puerperal Fever.

By Dr. MACLAREN.

Dr. A. Maclaren, in his interesting paper, defines puerperal fever as 'a fever, *not* specific, but a disease due to absorption of some septic poison, this poison being absorbed either by the lymphatics or the veins at the site of some breach of continuity in the parturient canal.' The conclusions he arrives at are—

1. That the poison of erysipelas, surgical fever, and puerperal septicæmia or pyæmia is one and the same, and that they are to a certain extent interchangeable; that when the poison from any one of these diseases is placed in the parturient canal at the time of labour, it will produce a train of symptoms which have been until lately classed together under one heading—i.e. puerperal fever.

2. Erysipelas being a disease due to a bacterial poison with a tendency to recurrent attacks without a second exposure, the bacteria must be able to live in the apparently healthy skin for an indefinite space of time.

3. That the germs of erysipelas, when living in this quiescent or dormant state, although they may not be able to excite an attack of erysipelas of the skin, may still, under proper conditions, produce either surgical or puerperal fever.

CANADA MEDICAL AND SURGICAL JOURNAL.

A Year's Work in Abdominal Surgery. By Dr. GARDNER.

During the year 1886 Dr. Gardner opened the peritoneal cavity 38 times. Of these 38 cases 35 were abdominal sections and 3 were vaginal hysterectomies.

He performed ovariectomy 16 times, all the patients recovering. Two of the pedicles were twisted, giving rise to considerable pain, and in one to peritonitis. This last case was pregnant when the operation was performed, and though a drainage-tube was placed in the posterior cul-de-sac, and

left there for several days after the operation, abortion did not follow. Another point worth noting in connection with ovarian cysts with twisted pedicle is that in all the cases that have come under Dr. Gardner's care the cyst has been small.

In 9 of the 16 cases the second ovary was removed. Dr. Gardner is still uncertain how to determine whether the second ovary should be removed ; but he thinks that in women at or nearing the menopause, if the second ovary is at all cystic, it should be removed.

He removed the appendages in 11 cases, with 10 successful results, the only death being due to hæmorrhage—probably from a rent in the broad ligament. Two other cases are of great interest, though unfortunately they did not terminate successfully. They were two cases in which the abdomen was opened for puerperal peritonitis. In both patients the disease had been allowed to proceed too far before operative interference was proposed. Dr. Gardner believes there is a great future before these cases, especially in those cases in which we suspect previously existing disease.

In the hysterectomies the pedicles were all treated extra-peritoneally.

Dr. Gardner is convinced that the drainage-tube has saved many of his patients' lives, and that much harm may result by the too early withdrawal of it. Experience has also taught him that opium, in most cases, is more harmful than beneficial.

CENTRALBLATT FÜR GYNÄKOLOGIE.

Extirpation of the Uterus in Carcinoma. By Dr. FRITSCH.

The author gives his experience of this operation based on 60 cases. The mortality in his hands was 10 per cent. Twenty of the survivors have had no return of the disease ; in two cases a period of three years has elapsed since the operation ; in seven cases more than two years have elapsed ; while the rest of the cases have passed over a period of six months. He believes that recurrence of carcinoma in these

cases of total vaginal extirpation is less likely to take place than after operations for carcinomatous disease in other organs. To insure success the uterus must be movable. Those cases in which the uterus and parametrium are involved are very unfavourable for operation—in fact, if the parametrium be involved the operation should be abandoned, even if the vaginal culs-de-sac have been opened. Fritsch incises the vaginal walls laterally, instead of anteriorly and posteriorly, and only opens the peritoneum late in the operation. If difficulty is experienced in removing the ovaries they may be left, but steady traction on the ligatures will generally lower them sufficiently to allow of their removal. The peritoneal opening is not sutured, but closed with an iodoform tampon; no prolapse of intestines has occurred in his practice. In order to remove the uterus more easily, draw steadily first on one corner of the uterus, and then on the other. If a fibroid complicates matters laparotomy must be performed as well as the vaginal operation, and does not greatly increase the danger. When a recurrence of the disease takes place it generally affects the cicatrix first, unless a considerable period of time has elapsed, when it will probably first occur in the broad ligaments.

The Diagnosis of beginning Carcinoma of the Cervix.

By Dr. STRATZ.

Stratz arrives at the following conclusions with regard to carcinomatous disease of the cervix: (1) the diseased place is sharply limited by sound tissue, and never goes over into it by degrees; (2) a difference in the level of the whole diseased portion can always be made out; (3) carcinomatous portions have always a light yellow colour; (4) the malignant deposit is usually shown as finely granular, whitish-yellow glistening elevations, at least in individual places.

As these characteristics are evident to the naked eye, it is important that all practitioners should recognise them as early as possible, when a surgical operation may be the means of saving the patient's life.

GAZETTE CLINIQUE HEBDOMADAIRE.

A Case of Ovariectomy complicated with Aneurysm of the Arch of the Aorta. By Dr. KIRÉEW.

Some surgeons regard valvular disease of the heart or an aneurysm as contra-indicating the performance of a severe operation. The rapid increase of an ovarian cyst presents immediate danger to the life of a patient, and necessitates operative interference. Kiréew reports a case in which the patient suffered from aneurysm of the aorta and ovarian cystoma. The patient was anæsthetised, chloroform being used, and an ovarian tumour of 24 lbs. weight was removed: the operation lasted 35 minutes. The patient made a rapid recovery. When the life of the patient is in danger, owing to a rapidly growing ovarian tumour, Kiréew is of opinion that an operation must be performed at once, the only contra-indications being the presence of the acute febrile diseases and cancerous disease far advanced.

BULLETIN GÉNÉRAL DE THÉRAPEUTIQUE.

The Treatment of Peri-uterine Phlegmasias by Electricity.

By Dr. APOSTOLI.

The author concludes that (1) at the beginning of acute peri-uterine inflammation electricity, in the form of a faradic current of high intensity, relieves pain and cuts short the acute inflammatory processes; (2) the galvanic current is a valuable expedient, and can be used either as an intra-uterine galvano-chemical caustic to bring about resolution in the sub-acute stage, or as a vaginal negative galvano-puncture, which may be employed with success in every degree and at every period in the chronic state.

Restoration to perfect health is not guaranteed in every case, but the author believes that this method of treatment will relieve patients more rapidly and more effectually than any other.

A rare variety of Parovarian Cyst, and its Relation with Ovarian Cysts proper. By M. TERRILLON.

Two distinct varieties of ovarian cysts are generally described : (1) true cysts of the ovary ; (2) unilocular parovarian cysts. Sometimes, however, one meets with cases of broad-ligament cysts, entirely distinct from the ovary, which nevertheless resemble multilocular ovarian cysts very closely. M. Terrillon has met with four such cases, of which the following will serve as a type. The patient was 36 years of age ; complained of a large tumour in the abdomen, which had grown very slowly. In the vagina is occupied the left vaginal cul-de-sac. A cyst of the broad ligament was diagnosed. When the abdomen was opened and the cyst was punctured a thin coloured fluid escaped. It contained 25 per 1,000 paralbumin. The cyst itself was entirely separate from the ovary, was unilocular and partly included in the broad ligament. Its walls were slightly thickened with warty out-growths, and was covered with tessellated epithelium. The three other cases were similar to this, with the exception that the paralbumin was less. As to the origin of these cysts, it is known that cysts of the ovary and broad ligament are distinct, and are developed in the ovary or organ of Rosenmüller respectively, while probably these intermediate cysts are developed from a supernumerary ovary. This is the explanation put forward by MM. Malassez and Sinéty, and upheld by Terrillon and others.

Study of Hydatid Cysts of the Uterus. By MM. PEAN and SECHEYRON.

Hydatid cysts of the uterus are a pathological rarity, only ten cases having been recorded. The hydatid embryo reaches the uterine musculature either indirectly by the blood or more directly by passing through the coats of the intestine and passing on to the uterus, or by rupture of a daughter-cyst

derived from an abdominal hydatid cyst. It may develop in the uterus as an interstitial growth, or submucous growth, or even a subserous growth. By increase in the size of the cyst the uterine wall will gradually be so thinned that rupture will take place, as in cases reported by Brill and Knethenmeister. If the growths attain a large size they give rise to pains, uterine contractions with or without metrorrhagia, difficulty in micturition and walking. They have been known to produce retroflexion and inversion of the uterus, and sometimes retention of urine. Their characteristic symptom consists in the expulsion of hydatid vesicles. Pregnancy causes them to increase rapidly, though their influence on pregnancy appears to be nil. They produce neither sterility nor abortion, judging from the cases which have been observed. With labour, however, they greatly interfere and may even be the means of the arrest of labour, if the cyst is in the cervix or lower segment of the uterus, in which case the foetus will have to be destroyed and cephalotripsy or embryotomy resorted to. Prognosis in these cases of hydatid cyst of the uterus is serious, as the cyst very rarely disappears or diminishes in size. When a correct diagnosis has been made the best treatment consists in puncturing the cyst, taking away some of the cyst-wall, and draining.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

OBSTETRICAL SECTION.

Suppurating Ovarian Cyst.—Dr. Atthill showed a specimen of a suppurating ovarian cyst taken from a lady, aged 35, who enjoyed excellent health till about two months previously, when she got cold, and had a sharp attack of peritonitis. During this her medical attendant detected a tumour in her abdomen. The tumour was found to be multilocular; and on the largest of the cysts being tapped, the tumour was pressed out without difficulty through a small opening in the abdomen. He was then surprised to find that it was attached to the uterus by a rather short and thick

pedicle. A secondary cyst—the one exhibited—was then discovered, which, on being tapped, was found to contain pus. One interesting point about this cyst was its shape, which was quite different from anything that he had seen. A second remarkable circumstance about the case was that, notwithstanding this suppurating cyst, the lady had apparently nothing whatever wrong with her, having perfectly recovered from the peritonitis.

Uterine Hæmorrhage of Five Years' Standing, caused by an enlarged and Cystic Ovary: Removal of Ovary: Recovery.—Dr. M'Mordie exhibited the following case of an enlarged and cystic ovary. L. S., aged twenty-six, single, was admitted to the Samaritan Hospital for Women, Belfast, on July 27, 1887. A careful examination of the uterus revealed nothing to account for the constant oozing of blood from the os uteri. The right ovary felt enlarged, and there was tenderness upon pressure. Removal of one or both ovaries was recommended as the only means of effecting a cure. The nature of the operation having been fully explained to the girl and her mother, they gave their consent. On August 2 the right ovary was removed. The hæmorrhage ceased in about ten days after the operation, and the patient was now in the enjoyment of perfect health.—Dr. Macan said the present case made him more willing to remove such ovaries than he would otherwise have been. The difficulty was to connect pains or hæmorrhage absolutely with an enlarged ovary.—Dr. Atthill said that, according to his experience, enlarged ovaries and ovarian cysts were not the cause of profuse menstruation, but rather the reverse. Why an ovary in such a condition as that now shown should have given rise to such profuse hæmorrhage was to him a mystery.—Dr. W. J. Smyly said that, in the majority of cases, ovarian tumours did not lead to hæmorrhage. The occurrence of hæmorrhage depended partly on the nature of the tumour and partly on its site. If it developed between the layers of the broad ligament it would give rise to hæmorrhage from congestion. The present tumour was, he thought, an example of dropsy of the

Graafian follicles.—The President remarked that if the ovaries in their normal state excited menstruation he did not see why, when diseased and enlarged, they should not set up menorrhagia. The removal of a diseased ovary would divert the menstruation to the healthy ovary, and cause it to become normal.—Dr. M'Mordie replied.

CORRESPONDENCE.

To the Editor of the 'British Gynæcological Journal.'

7 The Crescent, Birmingham : Dec. 14, 1887.

SIR,—On page 445 you quote the words of Dr. Horatio R. Bigelow, in which he says that he cannot agree with the view tendered by one surgeon, 'When in doubt open the abdomen and find out.' He thinks a more accurate diagnosis should be made in every case before advising abdominal section. This is not the first occasion by many times on which I have had to correct this deliberate misquotation by Dr. Horatio R. Bigelow. He does not indicate me this time by name as he has in other instances, but the quotation which he says he takes he specifies in other instances to be from me.

I have never said, and I do not believe any other living surgeon has ever said, when in doubt open the abdomen and find out. What I have said is, 'The abdomen should be opened in cases of doubt only when there is risk to the life of the patient, or when the patient is in a serious condition,' a very different thing indeed from Dr. Bigelow's words. I am sorry to have to trespass on your space with this correction, but I will not submit to be deliberately misrepresented by Dr. Horatio R. Bigelow.

I am, &c.,

LAWSON TAIT.

NOTES.

The College of Physicians of Philadelphia have notified that the first award of the William F. Jenks prize for the best essay on 'The Diagnosis and Treatment of Extra-uterine Pregnancy' will be made as soon after January 1, 1889, as possible. The competition is open to everyone, and must be written in English and presented before January 1, 1889. The prize essay is to become the property of the College.

We hear on excellent authority that the first edition of Mr. Greig-Smith's book, 'Abdominal Surgery,' has run out, and that a second edition, revised and somewhat enlarged, is being prepared as rapidly as possible, owing to the great demand there exists for the work. We offer Mr. Greig-Smith our hearty congratulations on his success, which we predicted when reviewing the work.

Charles James Cullingworth, M.D., F.R.C.P., Professor of Obstetrics and Gynæcology, Owens College, Manchester, has been appointed Obstetric Physician to St. Thomas's Hospital, vice Dr. Henry Gervis, resigned. Dr. Cullingworth, we believe, will not enter upon his new duties until March, Dr. Gervis having kindly consented to perform the duties connected with the post of obstetric physician at St. Thomas's Hospital in the meanwhile. Dr. Gervis has for many years been connected with St. Thomas's, and has been greatly instrumental in raising the school to its present high position. His retirement from the hospital will be greatly felt.

In the present number of the Journal we publish a catalogue of books in the library of our Society. Dr. Bedford Fenwick has been engaged on this catalogue for some time past. Fellows wishing to borrow any books from the library can do so by applying to Dr. Bedford Fenwick, 20 Upper Wimpole Street, W.

Dr. Auvard has been appointed editor of the 'Archives de Tocologie.'

We regret to record the death of Gustave Bernutz, the well-known Paris gynæcologist. He died at Sedan on Dec. 20, 1887, from heart disease, the result of rheumatism.

We announce with regret the death of Dr. Hugh Miller, a prominent obstetrician in Glasgow, which took place on January 6, 1888.

CATALOGUE OF THE LIBRARY OF THE BRITISH GYNAECOLOGICAL SOCIETY.

ARRANGED, ORDERED, AND INDEXED BY EDWARD FLAVICK, M.D.

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Meadow's Bequest

NG, JAMES H., The Chamberlens and the Midwifery precepts. London, 1875	Presented by <i>The Author</i>
NG, JAMES H., Manuals of Harvey, including a Letter and Autograph Facsimile. (Paper cover.) London, 1875	" "
NG, JAMES H., English Midwives: Their History and Aspects. London, 1875	" "
-DENTON, EARL OF, A Handbook of House Ventilation for the Use of all Persons seeking a Healthy Home. London, 1882	<i>Meadows' Bequest</i>
W. MITCHELL, Clinical Notes. Glasgow, 1884	" "
K, GEORGE GRANT, On the Use and Abuse of Astringents. 2nd Edition. London, 1884	<i>The Author</i>
R, A. H. F., The Anatomy and Relations of the Uterus during the Third Stage of Labour and the First Stages of the Puerperium. Edinburgh, 1884	" "
, A. H. F., Sexual Defectuality in Relation to Sterility. Edinburgh, 1883	" "
, A. H. F., and F. CERRY HART, Manual of Gynaecology. 3rd Edition. Edinburgh, 1886	" "
, A. W., A Manual of Medical Diagnosis, being an Analysis of the Signs and Symptoms of Disease. 2nd Edition. London, 1885	<i>Meadows' Bequest</i>
A. W., Medical Cases. London, 1884	" "
FORDYCE, The Puerperal Diseases. London, 1874	" "
WALTER GOODYER, The Climate of Worthing: Its Local Influence in Disease, especially of the Lungs. London, 1860	" "
FANCOURT, A Manual of Midwifery for Midwives. 2nd Edition. London, 1875	<i>The Author</i>
ROBERT, A Clinical History of the Medical and Surgical Diseases of Women. 1st Edition. London, 1875	<i>Meadows' Bequest</i>
ROBERT, and FANCOURT BARNES, A System of Medical Medicine and Surgery. Theoretical and Practical, for the Student and Practitioner. 2 Vols. London, 1884	<i>The Authors</i>
E., and F. RILLIET, Traité Clinique et Pratique des Maladies des Enfants. 2nd Edition. Paris, 1883	" "
L. CHARLTON, The Modes of Origin of lowest Fever. London, 1878	<i>The Author</i>
QUE'S System of Midwifery, 3 Vols. Translated by Heath. London, 1890	" "
Les Œuvres Complètes de Morgagni. 3 Vols. 1837	<i>Professor Cordes of Geneva</i>
NEL S., On Life and its Vital Action in Health and Disease. London, 1877	<i>Meadows' Bequest</i>
NEL S., Life Theories: Their Influence upon Human Thought. London, 1871	" "
NEL S., The Mysteries of Life. London, 1871	" "
" " Protoplasmic Life, Matter, and Mind. 1st Edition. London, 1870	" "

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BEALE, LIONEL S., The Microscope, and its Application to Clinical Medicine. London, 1854	<i>Meadows' Bequest</i>	
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- F.F. *BENINGTON, ROBERT CREWDSON, L.R.C.P. Lond., M.R.C.S., L.S.A.,
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- 1885 BIGELOW, HORATIO RIPLEY, M.D., Washington (D.C.), U.S.A.
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- 1887 BULLRID, EDGAR G., L.R.C.P., L.C.C.S., &c.
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- 1887 BURY, EDWARD CHARLES, M.R.C.S., L.S.A., M.D., Wisbech.
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- 1888 DONKIN, CHARLES, L.R.C.P. Ed., L.F.P.S. Glas., 21 St. Julian's Road, Brondesbury (temp.)
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- F.F. DUNDAS, MORDAUNT GEORGE, M.R.C.S., L.S.A., Fakenham, Norfolk.
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- F.F. HODGSON, ROBERT HUGH, L.R.C.P. Edin., M.R.C.S. Eng., 160 Rye Lane, Peckham, S.E.
- F.F. HODSON, HENRY ALGERNON, M.R.C.S. Eng., L.R.C.P. Edin., 23 Brunswick Square, Brighton.
- F.F. HOLLAND, EDMUND, *Physician to The Hospital for Women*, 1 Titchfield Terrace, North Gate, Regent's Park, N.W.
- F.F. HOLMAN, WILLIAM HENRY, M.B. Lond., 68 Adelaide Road, S. Hampstead.
- 1885 HOOPER, JOHN WILLIAM DUNBAR, L.R.C.P. Edin., L.R.C.S. Edin., *Resident Medical Officer of the Gynaecological Department of the Melbourne Lying-in Hospital*, Lying-in Hospital, Melbourne.
- F.F. HOPE, WILLIAM, M.D., *Physician to Queen Charlotte's Hospital*, 56 Curzon Street, Mayfair, W. C. 1884.
- 1885 HOPPER, ARTHUR R., M.R.C.S., L.R.C.P. Lond., 63 Rodney Street, Liverpool.
- 1885 HOUGH, JAMES HAYWARD, M.A., M.R.C.S., Fern House, Trumpington Street, Cambridge.
- F.F. HOWELL, HORACE SYDNEY, M.D., F.R.C.S., 18 Boundary Road, St. John's Wood, N.W.
- 1885 HUDSON, WILLIAM THOMAS, M.R.C.S., L.S.A., 45 Cumming Street, Pentonville, N.
- 1887 HUMISTON, WILLIAM H., M.D., Cleveland, Ohio, U.S.A.
- 1885 HUNTER, JAMES BRADBRIDGE, M.D., 2 East Thirty-third Street, New York, U.S.A.
- 1887 HUTCHINSON, GEORGE WRIGHT, M.D. Aber., M.R.C.P. Edin., Chipping Norton, Oxon.
- 1885 IMLACH, FRANCIS, M.D. Edin., M.R.C.S. Eng., *Honorary Medical Officer, Hospital for Women, Liverpool*, 16 Canning Street, Liverpool. C. 1887.
- F.F. ISDELL, FITZGERALD, A.B., M.B. Dub., 43 Great St. Andrew Street, W.C.
- 1885 JACKSON, A. REEVES, M.D., 271 Michigan Avenue, Chicago, U.S.A.
- 1886 JACKSON, JAMES, M.R.C.S., L.S.A., 14 Huntingdon Street, Barnsbury, N.
- F.F. JACKSON, THOMAS VINCENT, F.R.C.S. Edin., *Senior Surgeon to the Wolverhampton and Staffordshire General Hospital*, 47 Waterloo Road South, Wolverhampton. C. 1884.
- 1886 JAGGARD, WILLIAM WRIGHT, M.D., 2,330, Indiana Avenue, Chicago, Ill., U.S.A.
- F.F. JAMES, W. CULVER, M.D., 11 Marloes Road, Kensington, S.W. C. 1884.
- 1887 JAMIESON, ARCHIBALD, M.D., C.M. Queen's University, Kingston, Ontario, L.S.A. Lond., Kars, Ontario, Canada.
- 1885 JAMIESON, ROBERT ALEXANDER, M.D.Q.U.I., Shanghai, China.
- 1885 JAKUES, WILLIAM, M.D., M.C.P. and S. Ont., Jarvis, Ontario.

Elected.

- F.F. JAY, HENRY MASON, M.D. Aberd., Chippenham, Wilts.
- 1887 JESSETT, FREDERIC BOWREMAN, F.R.C.S. Eng., *Surgeon to the Cancer Hospital, Brompton*, 16 Upper Wimpole Street, w.
- 1885 JEWETT, CHARLES, M.D., 307 Gates Avenue, Brooklyn, U.S.A.
- F.F. JOHNSON, JAMES BOVELL, M.D., M.Ch. Montreal, L.S.A. Lond., 364 Kingsland Road, e.
- 1886 JOHNSON, JOSEPH TABER, M.D., *Professor of Obstetrics*, 926, 17th Street N.W., Washington, U.S.A.
- 1886 JOHNSTON, JOHN, M.R.C.S. Eng., 17, Ashford Road, Maidstone.
- 1885 JOHNSTON, WILLIAM BEECH, M.D., 157 Jamaica Road, s.e.
- 1886 JOHNSTONE, ARTHUR W., M.D., Danville, Kentucky, U.S.A.
- 1887 JONES, DAVID OGDEN, M.D. Mch., L.R.C.P. Lond., Toronto, Canada.
- F.F. JONES, DAVID RHYS, L.F.P.S., L.S.A., 47 Endell Street, w.c.
- 1887 JONES, DIXON, M.D., Brooklyn, New York.
- F.F. JONES, EDWARD AZER, L.R.C.P. Edin., M.R.C.S. Eng., 413 Kingsland Road, n.
- F.F. JONES, H. MACNAUGHTON, M.D., *Examiner in Midwifery, Royal University, Ireland*, 141 Harley Street, w.
- 1887 JONES, JAMES THORESBY, M.R.C.S., L.R.C.P.E., L.M., 34 Maryland Road, w.
- F.F. JONES, LEWIS, M.D., M.R.C.S., Balham Road, Balham, s.w.
- F.F. JONES, W. HUGH FENTON, M.D. Brux.: *Assistant Physician to the Chelsea Hospital for Women*, 29 Brook Street, w.
- 1885 JOUBERT, CHARLES HENRY, M.B. Lond., F.R.C.S. Eng., *Acting Professor of Midwifery, Calcutta*, 52 Chowringhee, Calcutta.
- 1885 KEENAN, ALFRED J. W., M.D., L.R.C.S., L.R.C.P. Edin., L.M., 63 Guilford Street, Russell Square.
- 1886 KELLETT, ROBERT GUY, L.K.Q.C.P. I., Halstead, Essex.
- F.F. KELLY, JEREMIAH HUBERT, M.D., L.R.C.S.I., 84 The Grove, Hammer-smith, w.
- F.F. KEMPSTER, HENRY, M.B., M.R.C.S., Hastings House, Lavender Hill, Clapham Junction, s.w.
- F.F. KENNEDY, HUGH B., L.R.C.S.I., *Assistant Surgeon to the Mater Misericordia Hospital*, 1 Gardiner's Place, Dublin.
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- 1885 KENNEDY, SAMUEL, F.R.C.S., L.R.C.P. Edin., 16 Montpelier Row, Blackheath.
- F.F. KIALMARK, HENRY WALTER, M.R.C.S., 5 Pembridge Gardens, Bays-water, w.
- 1886 KING, ALBERT F. A., M.D., 726, 13th Street, Washington, U.S.A.
- F.F. KNAPTON, GEORGE, L.R.C.P. Edin., 11 Hoghton Street, Southport.
- F.F. KNOTT, CHARLES, M.R.C.P. Edin., Liz Ville, Elm Grove, Southsea.
- 1886 KNOX, J. SUYDAM, M.D., 14, Loomis Street, Chicago, Illinois, U.S.A.
- F.F. KOCH, W. VINCENT M., M.B.C.M., Hull Borough Asylum, De-la-Pole, Cottingham, near Hull.
- F.F. LACEY, THOMAS WARNER, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., 9 Yorke Crescent, Woolwich.
- 1886 LAKE, WILLIAM WELLINGTON, M.R.C.S., Grove Road, Walthamstow, Essex.

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- F.F. LAMPREY, RICHARD ORFORD, L.R.C.P. and L.R.C.S. Edin., 62 East Hill, Wandsworth, s.w.
- F.F. LARKIN, FRANK COLET, M.B.C.M. Edin., 2 Duchess Street, Portland Place, w.
- 1886 LAWRIE, JAS. MACPHERSON, M.D., *Physician to the Weymouth Sanatorium*, Greenhill, Weymouth.
- F.F. LEBLOND, ALBERT, M.D., *Médecin de Saint-Lazare*, 53 Rue d'Hauteville Paris.
- F.F. LEICESTER, AMBROSE WILLIAM MONTAGUE, M.B., C.M. Edin., 180 Marylebone Road, n.w.
- F.F. LE PAGE, JOHN FISHER, L.R.C.P. Edin., 17 The Crescent, Salford, Manchester.
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- F.F. LEWIS, HENRY, M.D., West Terrace, Folkestone.
- F.F. LIGERTWOOD, THOS., M.D., Royal Hospital, Chelsea, s.w.
- F.F. LLEWELLYN, REES RALPH, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., 152 Whitechapel Road, e.
- F.F. LLOYD, SAMUEL, M.D., 4 High Street, Bloomsbury, w.c.
- 1885 LONG, FREDERICK WILLIAM DEVEREUX, L.S.A., 31 Finsbury Square, E.C.
- F.F. LOW, RICHARD MARSDEN PILKINGTON, M.B., L.M. Edin., L.R.C.P. Edin., L.R.C.S. Edin., L.M., 2 Nevern Road, Nevern Square, s.w.
- F.F. *LUNDY, LOUIS FRANCIS, M.R.C.S. Eng., L.S.A. Lond., L.M.
- 1885 LUSK, WILLIAM T., M.D., 47 East Thirty-fourth Street New York, U.S.A. V.P. 1887.
- F.F. LYCETT, JOHN ALLAN, M.D., M.R.C.P. Edin., The Hollies, Graiseley, Wolverhampton. Hon. Loc. Sec.
- F.F. MACAN, ARTHUR VERNON, B.A., M.B. Dub., M. Ch., M.A.O., *Master of the Rotunda Hospital, Dublin*. V.P. 1887.
- 1885 MACAN, JAMESON JOHN, M.A., M.R.C.S., 121 Gower Street, w.c.
- F.F. MACCULLUM, DUNCAN C., M.D., 45 Union Avenue, Montreal, Canada.
- F.F. MACDONALD, RODERICK, M.D. Dur., F.R.C.S. Edin., L.R.C.P. Edin., 65 West Ferry Road, Millwall, e.
- 1885 *MACDONNELL, MARK ANTONY, M.D., M.Ch., L.M. (Q.U.I.)
- F.F. MACGAVIN, JOHN, L.R.C.P., L.R.C.S.E., 72 Trafalgar Road, Greenwich, s.e.
- 1885 MCGEAGH, WILLIAM, M.D. Roy. Univ. Ireland, M.R.C.S. Eng., 20 Spellow Lane, Liverpool.
- 1887 MACKENZIE, JOHN INGLEBY, M.B. Cantab., M.R.C.S., L.S.A., 33 Powis Square, w.
- 1886 MACKENZIE, WILLIAM G., F.R.C.S. Ed., 92, Richmond Terrace, Belfast.
- F.F. MACKERN, JOHN, M.D. Cantab., *Assistant Physician to the Chelsea Hospital for Women*, 30 Cambridge Street, Hyde Park, w.
- 1885 MACKIE, JOHN, L.R.C.P., L.F.P.S. (Edin. and Glasgow), 41 Queen's Walk, Nottingham.
- 1886 MACPHERSON, CHARLES, M.B. Glasg., Bonar Bridge, Sutherlandshire, N.B.

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- F.F. MADDEN, T. MORE, M.D., *Obstetric Physician to Mater Misericordie Hospital*, Dublin, 55 Merrion Square South, Dublin.
C. 1884. V.P. 1885.
- 1887 MANSER, FREDERICK, M.R.C.S. Eng., The Priory, Church Road, Tunbridge Wells.
- 1887 MARLEY, HENRY FREDERICK, M.R.C.S.E., L.R.C.P., L.S.A., L.M. The Nook, Padstow, Cornwall.
- F.F. MARSH, THOMAS CHARLES, M.R.C.S. Eng., L.R.C.P. Edin., 56 Fitzroy Street, Fitzroy Square, W.
- F.F. MASON, SAMUEL BUTLER, M.R.C.P., Denham House, Pontypool, Monmouthshire.
- F.F. MASON, SAMUEL, jun., F.F.P.S.G., M.R.C.S., L.S.A., 44 Finsbury Circus, E.C.
- F.F. MASSON, GEORGE BLAKE, L.R.C.S., L.R.C.P., L.M. (care of) D. J. Keynaer & Co., 1 Whitefriars Street, Fleet Street, E.C.
- 1886 MAURY, R. B., M.D., Memphis, Tennessee, U.S.A.
- 1886 McALLISTER, DR., 85, Madison Avenue, Albany, New York, U.S.A.
- 1887 MCCRIMMON, M., M.D., M.R.C.S. Eng., Palermo, Ontario.
- 1887 McMORDIE, W. K. M., M.D., 17 College Square, Gort, Belfast.
- 1887 McMULLEN, WILLIAM, L.K.G.C.P.T., L.R.C.S.T., L.M. Dublin, 319A Brixton Road, London.
- 1887 MENDES DE, LEON, M.A., M.D., Amsterdam.
- 1886 MERRIMAN, HENRY P., M.D., 2,239, Michigan Avenue, Chicago, U.S.A.
- 1887 MERRISON, JAS. G., M.D. Trinity University, Ontario, L.R.C.P. & S. Ed. and Glas., 25 Ampton Street, Sarnia, Ontario, Canada.
- F.F. MILLER, ANDREW, M.D. Edin., 5 Grosvenor Street, W.
- 1886 MILLER, DE LASKIE, M.D., *Professor of Obstetrics, Rush Medical College*, 2,011, Prairie Avenue, Chicago, U.S.A.
- F.F. MOORE, STEPHEN HENRY, F.R.C.S.E., *Medical Superintendent of Chelsea Infirmary*, Cale Street, S.W.
- 1887 MORISON, ALBERT EDWARD, M.B.C.M. Ed., M.R.C.S., Hartlepool.
- F.F. MORTON, THOMAS, M.D. Lond., M.R.C.S., L.S.A., *President of the Harveian Society of London*, 1 Greville Road, Kilburn, N.W.
C. 1888.
- F.F. MOULLIN, J. A. MANSELL, M.D., M.R.C.P., *Physician to The Hospital for Women, Soho; Assistant Physician for Diseases of Women to the West London Hospital*, 69 Wimpole Street, W.
C. 1884. Hon. Sec. 1887-8.
- 1887 MOWAT, DANIEL, M.D., Holmwood, Stamford Hill, N.
- 1885 MUNDÉ, PAUL F., M.D., 20 West Forty-fifth Street, New York, U.S.A., *Professor of Gynæcology at the New York Polyclinic, and at Dartmouth College*.
V.P. 1886.
- F.F. MUNRO, ROBERT H., M.B., C.M. Edin., Friockheim, Forfarshire.
- F.F. MURPHY, JAMES, M.D., *Surgeon to the Sunderland Hospital for Women and Children*, Holly House, Sunderland.
Hon. Loc. Sec.
- 1887 MURRAY, CHARLES STORMONT, L.R.C.S. Ed., L.S.A., L.M. Ed., 34 Gloucester Place, Portman Square, W.
- 1885 MURRAY, ROBERT MILNE, M.B. Edin., M.R.C.P. Edin., *Secretary, Edinburgh Obstetrical Society; Lecturer on Gynæcology, Edinburgh School; Physician for Diseases of Women to the Western Dispensary*, 10 Hope Street, Edinburgh.
C. 1886.

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- F.F. MUTCH, F. ROBERTSON, M.D., C.M. Aberd., 2 West Street, Sneinton, Nottingham.
- 1886 NELSON, DANIEL THURBER, M.D., 2,400, Indiana Avenue, Chicago, U.S.A.
- F.F. NETHERCLIFT, WILLIAM HENRY, F.R.C.S. Eng., Junior Athenæum Club, Piccadilly, w.
- F.F. NEUGEBAUER, FRANZ, M.D., *Assistant de la Clinique Gyniatrique à l'Université de Varsovie*, 6 Rue Orla, Varsovie, Russia. V.P. 1887.
- 1886 NEWTON, J. LAWRENCE, M.R.C.S., 4, Hyde Terrace, Melbourne Street, South Brisbane, Queensland.
- 1886 NISBET, WALTER BLAKE, M.B., C.M., Helmsley, Yorkshire.
- F.F. NOBLE, JAMES BLACK, M.R.C.S. Eng., L.R.C.P. & L.M. Edin., 51A Trinity Square, Borough, s.e.
- F.F. NUNN, T. W., F.R.C.S., *Consulting Surgeon, Middlesex Hospital*, 8 Stratford Place, w. C. 1884. V.P. 1886.
- F.F. NUTT, WILLIAM ANTHONY, L.S.A. Lond., Embankment Chambers, Charing Cross.
- 1885 O'DONNELL, THOMAS J., L.K.Q.C.P.I., L.M., L.R.C.S.I.*
- 1887 OLIVER, JAMES, M.D., M.B. Edin., C.M., M.R.C.P., &c. 9 Montague Street, Russell Square, w.c.
- F.F. OLIVER, JOHN FERENS, M.D., Ch.M. Edin., L.R.C.P.E. and L.R.C.S.E., 2 Hertford Gardens, Albert Bridge, s.w.
- 1885 ORAM, RICHARD R. W., L.R.C.P. Lond., M.R.C.S.E., Cremyll, Wandsworth Common.
- 1887 OVENS, THOMAS, M.D., M.C., M.C.P.S., Arkona, Ontario, Canada.
- F.F. PADMAN, JOHN, M.R.C.S. Eng., 22 Bloomsbury Square, w.c.
- 1886 PARSONS, JOHN INGLIS, M.D. Dur., *Assistant Physician to the Chelsea Hospital for Women*, 9, Collingham Place, s.w.
- F.F. PATERSON, ANDREW MCMASTER, L.R.C.P. and S. Edin., 6 Bury Street, St. James's.
- 1887 PEARSE, T. FREDERICK, M.D. Bruss., L.R.C.P. Lond., 10 Montague Street, Russell Square, w.c.
- 1887 PETTINGILL, ALFRED ERNEST ALBERT, M.R.C.S., L.S.A., 23 Duncan Terrace, Islington.
- F.F. PICKETT, JACOB, M.D. St. And., L.R.C.P. Edin., L.M., M.R.C.S. Eng., L.M., L.S.A., 26 Colville Square, w.
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- 1887 POCOCK, FREDERICK ERNEST, M.D., M.R.C.S. Eng., L.S.A., The Limes, St. Mark's Road, North Kensington, w.
- 1885 POLK, WILLIAM M., M.D., *President New York Obstetrical Society*, 13 East Thirty-fourth Street, New York, U.S.A.
- 1885 POOLEY, RICHARD CHARLES MASON, L.K.Q.C.P.I., Pensilva, Falmouth.
- 1886 POPE, HARRY CAMPBELL, M.D., F.R.C.S. Lond., 280, Goldhawk Road, Shepherd's Bush.

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- 1886 PORTER, P., M.D., 33, Adams Avenue, East Grand Circus Park, Detroit, Michigan, U.S.A.
- F.F. POTTER, GEORGE WILLIAM, M.D., C.M. Edin., 60 Highbury New Park, N.
- F.F. PRENDERGAST, J. MORGAN, M.D., M.C., M.R.C.S., L.M.*
- 1887 PRICE, JOSEPH, M.D., 500 N. 20th Street, The Preston Retreat, Philadelphia, U.S.A.
- F.F. PRIDHAM, CHARLES WM., F.R.C.S., M.R.C.P. Edin., 62 Hogarth Street, S.W.
- 1886 PRINGLE, JAMES HOGARTH, M.B., C.M., 5, Livingstone Place, Edinburgh.
- 1885 PROCKTER, ALFRED EDGUMBE, M.R.C.S. Eng., L.R.C.P. Edin. St. Albans Road, Watford.
- F.F. PURCELL, FERDINAND ALBERT, M.D., M.Ch., R.V.I., M.R.C.S., L.M. Eng., *Surgeon to the Cancer Hospital, Brompton*, 7 Manchester Square, W. C. 1888.
- 1886 PURDON, RICHARD J., M.D., M.Ch., 14, College Square East, Belfast
- F.F. PUREFOY, RICHARD DANCER, M.B., *Obstetric Surgeon, Adelaide Hospital*, 13 Merrion Square, Dublin. C. 1884.
- 1887 RAE, GEORGE A., L.R.C.P., L.R.C.S. Ed., 1 Outram Terrace, Stoke, Devonport.
- 1887 RANNEY, GEO. E., M.D., Lansing, Michigan, U.S.A.
- F.F. RASCH, ADOLPHUS A. F., M.D., M.R.C.P., 7 South Street, Finsbury, E.C.
- F.F. RAWLINGS, JOHN ADAMS, M.R.C.P. Edin., *Physician to the Swansea Hospital*, 4 Northampton Terrace, Swansea. C. 1888.
- 1887 READMAN, T., L.R.C.P. Ed., L.M., &c. Westgate House, Driffeld,
- 1887 REED, CHARLES A. L., M.D., Cincinnati, Ohio.
- F.F. REEVES, HENRY ALBERT, F.R.C.S. Edin., *Assistant Surgeon, London Hospital, Surgeon to The Hospital for Women*, 7 Grosvenor Street, W. C. 1884.
- F.F. REID, W. LOUDON, M.D. Glasg., *Lecturer on Midwifery and Diseases of Women and Children, Western Medical School, Glasgow; Physician to the Glasgow Maternity Hospital*, 7 Royal Crescent, Glasgow. C. 1888.
- F.F. RICHARDSON, JOHN HUMPHREY HOWARD, M.R.C.S., L.S.A., 23 North Street, Wandsworth, S.W.
- 1887 RICHMOND, THOMAS, L.R.C.P.E., L.F.P.S.G., 2 Windsor Terrace, Glasgow.
- 1888 RICKETTS, E. S., M.D., Portsmouth, Ohio, U.S.A.
- F.F. RILEY, JAMES, L.R.C.P. Edin., M.R.C.S. Eng., L.M., L.S.A., 131 St. George's Road, South Belgravia, S.W.
- F.F. ROBERTS, D. LLOYD, M.D., F.R.C.P., F.R.S. Edin., *Obstetric Physician to the Manchester Royal Infirmary, Physician to St. Mary's Hospital, Manchester, and Lecturer on Clinical Midwifery and the Diseases of Women in Owens College*. C. 1884. V.P. 1886.
- F.F. ROBERTS, THOMAS, L.S.A. Lond., 81 Tredegar Road, Bow, E.
- F.F. ROBERTSON, A. MILNE, M.D. Edin., Gonville House, Rochampton, S.W.
- 1886 ROBINSON, JOHN, M.D., F.R.C.S. Eng., Midhurst, Sussex.
- F.F. ROOTS, WILLIAM HENRY, M.R.C.S. Eng., Kingston-on-Thames.

Elected.

- 1885 ROSEBRUGH, JOHN WELLINGTON, M.D., Hamilton, Ont., Canada.
- F.F. ROUTH, CHARLES HENRY FELIX, M.D., M.R.C.P., *Consulting Physician to the Samaritan Free Hospital*, 52 Montague Square, w.
V.P. 1884-7. C. 1888.
- F.F. RUSSELL, LOGAN D. H., M.D., M.R.C.S., 2 St. James's Road, New Brighton, Cheshire.
- 1885 RUTHERFOORD, HENRY TROTTER, B.A., M.B. Cantab., M.R.C.P. Lond., *Assistant Physician to the Chelsea Hospital for Women, Surgeon, Royal Maternity Charity*, 46 Queen Anne Street, w.
- F.F. RYLEY, J. BERESFORD, M.D., M.R.C.S., L.R.C.P., 24 Finsbury Square, E.C.
- F.F. SALTER, THOMAS KNIGHT, M.R.C.S. Eng., L.F.P.S.G., 23 Lower Seymour Street, w.
- F.F. SANDERS, JOHN WILLIAM, M.D., F.R.C.S. Eng., Bethnal Green Infirmary, Victoria Park, E.
- F.F. SAVAGE, THOMAS, M.D., *Surgeon, Birmingham and Midland Hospital*, 32 Newhall Street, Birmingham. C. 1884-6. V.P. 1887.
- 1886 SAWYER, EDWARD WARREN, M.D., 3,733, Vincennes Avenue, Chicago, U.S.A.
- 1887 SHAW, JOHN, M.D. Lond., M.R.C.P. Lond., Burlington House, Wiloughby Road, Hampstead, N.W. C. 1888.
- F.F. SHAW, JOSEPHUS, M.D. Heidelberg, M.R.C.S. Eng., L.S.A. Lond., 42 Plough Road, Rotherhithe.
- F.F. SHEEN, ALFRED, M.D., *Surgeon to the Cardiff Infirmary*, Haswell House, Cardiff. C. 1884.
- 1887 SHELEY, P. A., M.D., Shelbyville, Kentucky, U.S.A.
- F.F. SHEPPARD, WILLIAM DAVID, L.R.C.P. Edin., L.R.C.S., Cyfarthfa, Merthyr Tydvil, Glamorganshire.
- 1886 SHERRARD, CÆSAR DUDLEY, L.K.Q.C.P., M.R.C.S., The Avenue, Eastbourne.
- 1886 SIMMONS, HENRY FOURNESS, M.B., C.M., 30 Alberto Terrace, Darlinghurst, Sydney, New South Wales.
- 1887 SIMPSON, DAVID, M.B., C.M. Aber., Sumbulpore, Central Provinces, India.
- 1885 SIMPSON, JAMES HERBERT, M.D. Aberd., The Crescent, Rugby. C. 1887.
- 1887 SINCLAIR, DUGALD, M.B., C.M., 507 Caledonian Road, N.
- 1885 SINCLAIR, WILLIAM JAPP, M.D. Aberd., *Physician to the Manchester Southern Hospital*, 268 Oxford Road, Manchester. C. 1887.
- 1885 SKENE, ALEXANDER J. C., M.D., 167 Clinton Street, Brooklyn, N.Y., U.S.A.
- F.F. SLIMON, WILLIAM, M.B. Glasg., 4 York Place, Bow Road, E.
- 1886 SLOAN, SAMUEL, M.D., *Physician to the Glasgow Maternity Hospital*, 1, Newton Terrace, Glasgow.
- 1887 SMART, DAVID, M.B., B.Sc. Edin., 1 Hartington Road, Liverpool.
- F.F. SMITH, BRYCE, M.B., Belfast. C. 1887.
- F.F. SMITH, E. T. AYDON, L.S.A., Disco House, 10 Alexandra Road, St. John's Wood, N.W.
- 1887 SMITH, GEORGE COCKBURN, M.D. Bruss., M.R.C.S. Eng., L.R.C.P., L.R.C.S. Edin., The Abbey, Winchester, Hants.
- F.F. SMITH, GILBERT THOMAS, M.R.C.S., L.S.A., 85 Richmond Road, Barnsbury, N.

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